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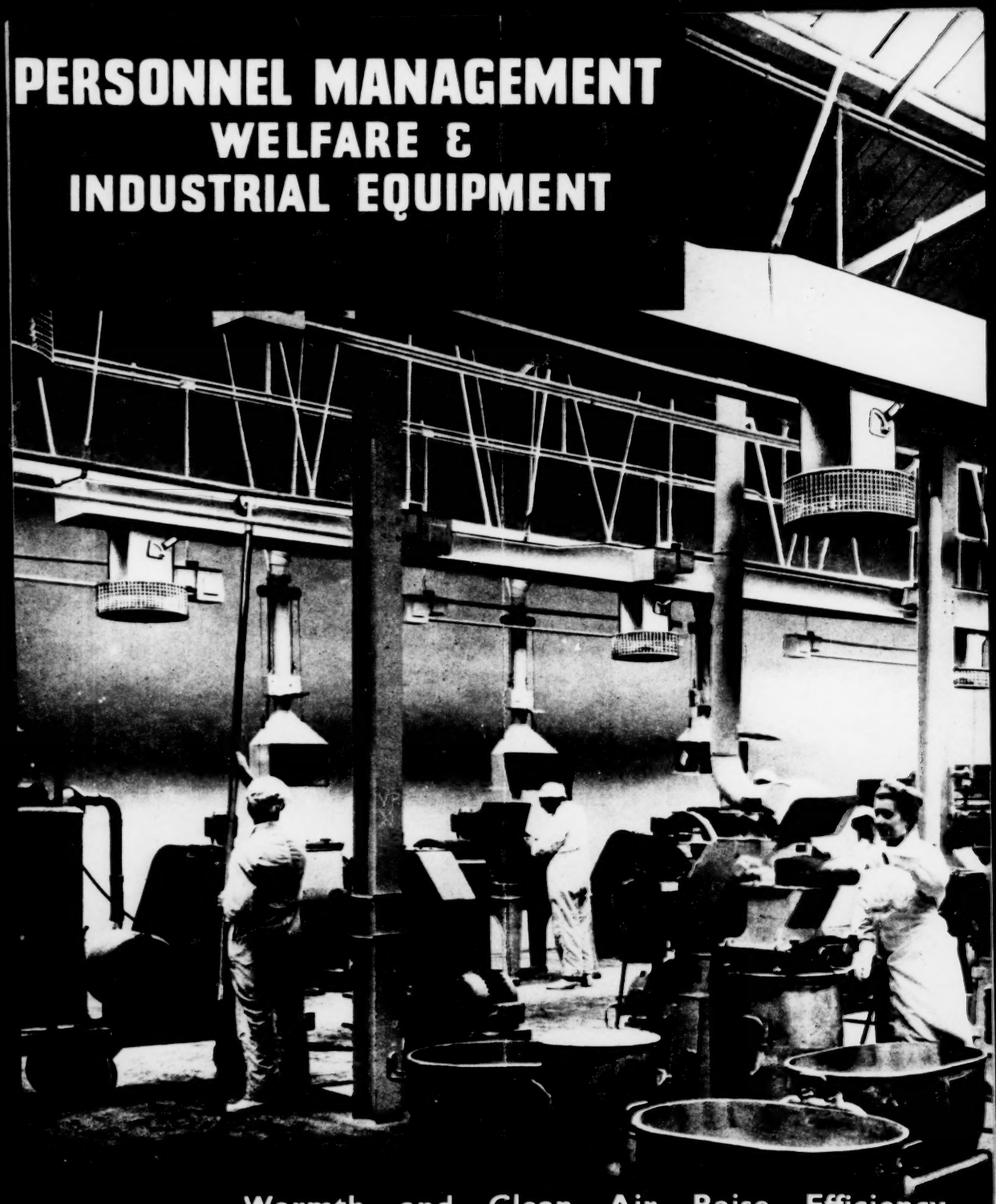
WELFARE & INDUSTRIAL EQUIPMENT



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(See Page 107)

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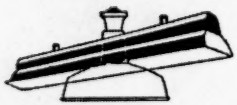

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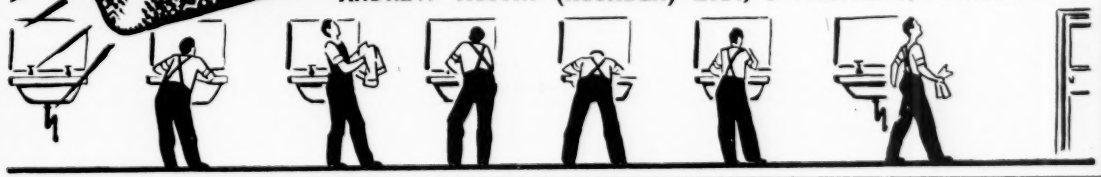

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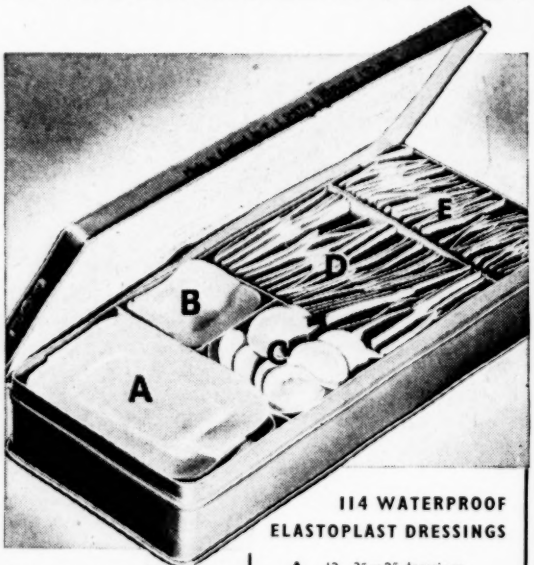

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INCORPORATING CIVIL DEFENCE JOURNAL AND A.R.P. AND N.F.S. REVIEW

Vol. 18, No. 136 — SEPTEMBER, 1951

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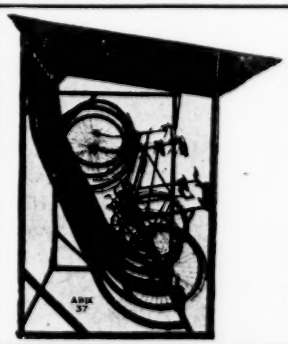

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How to cut absenteeism

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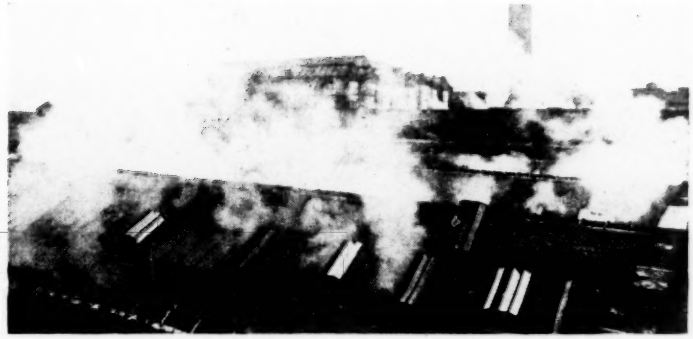


Efficiency Depends on Good Heating and Ventilation

By L. C. C. RAYNER, B.Sc.

Workers' output is greatly influenced by atmospheric conditions. When these are good, production goes up and accident rates fall. But you can't get the right atmosphere by merely hanging up a thermometer.

ORDINARY experience shows that warmth or lack of it and the condition of the atmosphere have a real influence on comfort. Going further, everyone feels fitter and more vigorous on a Spring day when it is neither too hot nor too cold and there is a gentle but sufficient air movement. This feeling of well-being is not a psychological one because of the passing of the winter, but is due to the reaction of the body to a number of physical factors.

Research has shown that the output of workers is influenced by atmospheric conditions and that under optimum conditions accidents in factories are reduced in number. This is recognised by the Factories Acts, which lay down temperatures which must be maintained for various types of work. They also stipulate that ventilation shall be adequate.

Most people attempting to evaluate thermal conditions in a room would hang up a thermometer. This instrument is, however, often far from satisfactory. It measures air temperature, which is only one of the factors affecting the feeling of warmth. For example, thermometers in rooms heated by hot water radiators and by electric fires would show different readings although equal comfort was experienced. In the room with the fire the body would receive heat by radiation to which the thermometer is relatively insensitive. Thus a lower air temperature is required when heating is by radiation than when convective heating is used, so that air temperature is not necessarily a good criterion of thermal conditions in occupied rooms.

In winter the factors which affect warmth are heat received by radiation and convection, and air movement. This last plays a part since the more rapid the motion of air across the body the greater the rate of heat transfer. Another factor of importance in summer is the amount of moisture in the air. The body is always losing heat by insensible perspiration and the rate of this loss is influenced by the moisture content of the air. This can be neglected in occupied rooms in the winter.

Instruments have been devised to take account of all the factors mentioned and to give their resultant effect on the human body. They tend to be more complicated than thermometers, so that their use is restricted to special circumstances.

Hot water is the almost standard medium for distributing heat in this country. It has a number of advantages, in particular the ability to regulate heat supplied to rooms by alteration of water temperature. It is thus possible to meet any condition of weather by adjusting the water temperature at the boiler house or some other central place. Water circulates without noise and requires little maintenance.

Radiators are still the most common form of heating element. The name is a poor one since the usual radiator emits about 30 per cent of its heat by convection. In order to achieve lowest running costs it is desirable to use a number of small

Above: Colt industrial high-duty roof extractors at the Bradford mills of Lister and Co. Ltd.

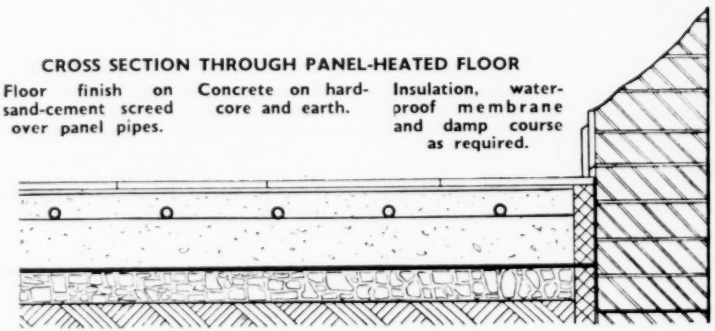
radiators rather than a few large ones. They should always be placed so as to offset cold spots; that is, they should not be placed on inside walls but on outside walls, and in particular they should be fixed under windows. This leads to a comfortable temperature in the occupied zone without the excessive ceiling temperatures which accompany the bad positioning of radiators.

Embedded panels are finding increasing use in offices or similar buildings. In this case continuous coils of pipe are embedded in the building fabric, usually in ceiling or floor, or very occasionally in walls. Low temperature water is circulated through the pipes which impart heat to material in which they are buried. Large areas of the ceiling or floor thus become warm and act as radiant sources. Panel installations have higher first costs than radiator installations because of the greater care involved in installation and because of the low temperatures employed. The surface temperature of a floor, for example, should not exceed 75° F. if discomfort is to be avoided, whereas the surface temperature of a radiator is of the order of 160° F. Since heat imported to a room increases as the surface temperature increases, panel schemes require greater areas of heating element than radiator schemes.

On the other hand full costs are lower for panel heating than for radiator heating. Owing to the large amount of radiation produced by a warm floor or ceiling a comparatively low air temperature produces comfort. This reduction in air temperature decreases the heat lost by the building with a corresponding reduction in fuel burned.

Cut-away section of horizontal unit heater (Flexair Ltd.).

CROSS SECTION THROUGH PANEL-HEATED FLOOR


Floor finish on sand-cement screed over panel pipes.
Concrete on hard-core and earth.
Insulation, water-proof membrane and damp course as required.

Buildings having large doors constantly open are notoriously difficult to heat. Cold air makes its way through the door openings so that attempts to achieve comfort involve large fuel consumptions. Embedded floor panels have been used in this type of building, garages and aeroplane hangars, for example. The feet are kept warm by the warm floor and radiation from the floor impinging on the body cancels the chilling effect of cool air.

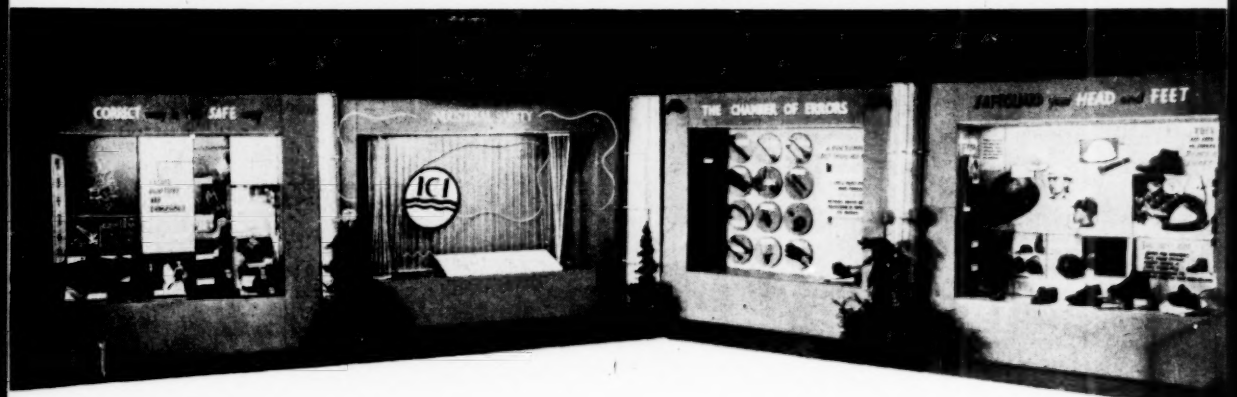
Factories and similar buildings are frequently best served by unit heaters. These consist of a casing enclosing an electrically-driven fan, a heating element and discharge louvres. The fan draws air from the heated space, blows it through the heating element and out through the louvres to the heated space again. The louvres may be set to give various directions of air discharge. Such units are cheap, warm a building quickly and readily lend themselves to automatic control. They may be adapted to bring in fresh air, a feature of value in summer when, with the heating out of use they create refreshing air movement.

Except under special circumstances solid fuel is still the cheapest source of heat energy. Efficiency and low costs are more readily achieved with some form of automatic stoking than with hand firing. A development which has been given thought but so far little application in this country is what is known as block heating. Here, heat is generated in one boiler house for several adjacent or preferably contiguous buildings. Not only are costs to the individual reduced but the national interest is served by a lessening of atmospheric pollution and a concentration of fuel delivery and ash removal.

The high cost of fuel has produced in increasing interest in automatic control of heating and ventilating installations. With the aid of such controls fuel costs are frequently reduced by up to 20 per cent. Moreover this saving is usually accompanied by more comfortable conditions, since both over and under heating are avoided.

Natural ventilation is still the best solution in many ways for most applications. Possibly the major disadvantage is lack of control, so that too much fresh air is introduced with consequent fuel wastage. Mechanical ventilation lacks this fault and is a necessity where rooms are densely occupied particularly if the period of occupation be long. In noisy or dirty locations, too, mechanical ventilation is desirable, since an adequate supply of fresh air can be brought in without an accompaniment of noise and dirt.

For some industrial processes air conditioning may be necessary. This gives complete control of air temperature, moisture content, movement and purity. To achieve these ends in summer, refrigeration is necessary, but where materials are affected by the temperature and moisture of the air the high capital cost will be justified. Where refrigeration is installed consideration should be given to its use for winter warming as a heat pump. Instead of abstracting heat from rooms and discharging it to atmosphere, refrigerating plant may also be used in winter to abstract heat from the earth, a river, or the atmosphere, and discharge it to rooms. Running costs can be lower than for any other form of heating, but only if the heating costs do not have to bear the capital charges of the refrigerating plant. In other words, the heat pump may usually be justified if refrigeration is necessary for summer air conditioning, but not if it has to be installed only for winter heating.



Publicity Can Help Your Business *Inside* the Factory, Too

By **W. J. S. GRAHAM,** *Safety Officer, Clayton Aniline Co. Ltd.*

When you want to "sell" your employees a good idea—whether it be to enhance safety, save fuel or raise output—use the methods of the advertising agency. They really work.

PUBLICITY is a vital part of any business—so why should it be rarely used in the works?

Within a factory one seldom meets an effective sales policy and yet it is imperative that ideas connected with personnel relations be sold to employees. "Sold" is the operative word: ideas can be sold as well as commodities.

What methods can be used? Exactly the same as those used by an advertising agency for any other product or service. First, study the product or idea and then decide the most suitable media to use, i.e. posters, notices, individual circulars, display, personal sales appeal, exhibitions, films or film strips. It may be that several methods will have to be used either simultaneously or in succession. Some ideas will require only a short campaign while others will have to be continuous over a period of years.

Two examples will serve to illustrate this point. *A wage increase:* one notice in the smallest type on an insignificant board, and the news will be known to everybody in fifteen minutes. *A safety campaign:* every artifice of publicity will have to be used continuously over a period of years.

Broadly speaking, works publicity can be divided into two fields, the information or statutory notice, and the development of an idea. As far as the first category is concerned, it is advisable in every works to have all statutory notices covering Factory Act regulations, wages council awards, etc., displayed in a series of glass-fronted notice boards, in addition to being hung up in the appropriate shop. Once up, apart from the necessity of cleaning the glass fronts, they can be forgotten. Information notice boards tend to become cluttered up with old notices, therefore it is advisable to have at least one board in a prominent position painted in a distinctive colour and illuminated for the display of new notices. No notice should be allowed to stay on this board for longer than one week. On a board which is constantly up to date, new notices will be read and the information well disseminated. Properly designed boards also serve a useful purpose in the various production shops, providing that the notices are not allowed to become stale. To avoid this it is advisable to date-stamp each notice in the bottom left-hand corner to show when it should be taken down. Further, one person should be detailed for the duty of putting up and taking down all notices.

Selling an Idea

Safety probably requires and receives more publicity in a works than any other subect, although the various points given below can be used with equal force for a "Save Water," "Save Fuel," or "Production" campaign. Any major campaign must be planned in advance. It will not be successful if it is allowed to develop in a haphazard fashion. An idea of the expense involved is essential. When a sum of money has been allocated, it should be carefully spread over the various media which will be used; but the allocations to each form of advertising must not be too meagre. A few posters, an inferior circular, a poorly produced exhibition will have little effect, the money having been dissipated through too many channels. The cumulative effect of publicity is tremendous. One advertisement or poster has little effect but 100 will drive the message home. The object is to hit and continue hitting.

A poster carelessly displayed

Magnetic letters were used to deliver the message on the two side panels of this display stand.

not publicity, it is just a waste of money. In addition to the posters, the sites should be carefully selected. Wherever possible a solus site, without any near opposition, should be chosen. It should be a site which is passed by a large number of people in the course of each day. As a rough guide, I suggest two sites in every works and additional sites at the rate of one for every 100 employees.

On general hazards the posters at any one time should all be directed towards a similar theme. The constant repetition registers in the mind. if a mix-up is allowed, the passer-by will become mentally confused between, say, unsafe spanners, tidiness, the use of goggles and safe stacking. In a general way it is difficult to improve on the Ro.S.P.A. safety posters, but the occasional works-designed poster is very useful for either a special event or hazard. In this case the silk-screen process will provide posters in one or more colours at a low cost.

When designing a poster, use as few words as possible; let the picture tell the story. A badly lettered or finished poster looks cheap and it makes the idea which one is trying to sell appear cheap; therefore try and display well lettered and finished posters. A few founts of magnetic letters which can be placed on a black or coloured metal background enable a well-lettered poster to be produced in a few minutes without expense, apart from the initial cost of the letters.

Display

By the aid of display in shop windows the attention of thousands of people is focused each day on products which the retailer wishes to sell. There is no reason why each factory should not have a shop window. The picture (*page* 109) shows one idea which is being used at the moment; it is designed so as to provide a variety of stands. In the past, I have used a stand about 6 ft. long, 4 ft. high, and 2 ft. deep, which had a plate-glass window. This shop window could be dressed, placed on a trolley, wheeled to a selected site and left. When illuminated at night it acted as a first-class display agency and therefore it had a 24 hour-a-day eye appeal. *By the use of such stands it has been possible to quadruple, for example, the sales of safety boots.*

Exhibitions

Exhibitions can be very expensive. They can also look very amateurish. If the company has a publicity department within the organisation, it is advisable to consult them on the layout and design of stands and all other forms of publicity. If there is no such department I would advise the use of a firm of exhibition stand designers. They can put forward a variety of complete designs, including models, together with an estimate of the cost, which will enable one to produce a first-class exhibition within the amount of money that has been allocated for this purpose. If, however, the budget is too small, one will be told in advance and can then either adjust their plans or scrap the idea. Equipment and stands can often be hired and, where the exhibition will only be used once, this is without doubt the best thing to do.

Circulars and Magazines

An occasional circular sent to each employee can have a very beneficial effect. This can be paralleled with the direct mail form of advertising. Again the well-finished letter will attract more attention than a poorly duplicated circular. The message should be short, pithy, and signed by a senior member of the company.

Another form of direct advertising which I have used has been the sending to the home address of each employee who has reported to the ambulance room with a septic injury, a copy of the Ro.S.P.A. leaflet on blood poisoning. Being sent to the employees at their home address, it has caused discussion among members of the family and the message has, I am sure, been remembered. Works magazines are very useful provided one does not try to preach to the employee.

Coincidental with the release of the recent film "Scott of the Antarctic" I had an article in the works magazine dealing with the need for protective clothing, e.g. gloves, goggles, etc., when the film was being shot. The article was illustrated by stills supplied by the film producers and remarks made by the actors during filming on the need for the full use and care of protective clothing were quoted. The article was read with interest and there were many comments on its unusual nature. With a works magazine, pictures have much greater eye-appeal than a mass of type.

Personal Sales Appeal

The finest form of advertising, in my view, is the direct approach. Before any new piece of equipment or idea is adopted it should be tried out on a small group of employees. If it is good there will be at least some members of the group who will become enthusiastic salesmen for the idea. They will recommend it to other employees and if this method is used, sales resistance will be broken down more easily.

Films and Film Strips

One of the great advantages of films and film strips is that they can feature people and places that the workers know. A film which includes members of the works in the cast receives far more attention than one which does not. Like all other forms of publicity it should be *good;* and if there is not a first-class amateur producer and photographer within the works, outside professional assistance should be obtained. Films appear expensive to make but when the cost is spread over several years and a large number of employees, the *per capita* figure is frequently very low.

Film strips are cheap to make, even when a professional photographer is employed. They can be altered and new shots included quite inexpensively. As an instructional method for large or small audiences they are excellent providing that the commentary is carefully thought out and well delivered.

Putting the Shop Stewards in the Picture

Tell them how the company works, and what it is trying to do. Tell them their rights, and their obligations. And let them look over management's shoulder for a little while.

THE Management of the Imperial Smelting Corporation Ltd., are in no doubt about the value to the firm of enlightened employees—men who know how the company is organised and what its aims and objects are. They believe that the supervisor or operative who has been given inside knowledge of the problems of management and the functions of the firm is far more likely to give of his best, in bad times as well as good, than one who does his daily stint in blinkers.

Consequently, as a supplement to the comprehensive job training programme, there has been developed a series of background courses designed to give employees an insight into:

1. What is involved in running a big firm;
2. The other fellow's job;
3. The processes peculiar to the company—in this case, the production of zinc and chemicals.

The first courses to be organised were restricted to foremen, but so successful were they that last August the management decided to make a similar course available to accredited shop stewards of various trade unions. The wisdom of this decision has been amply confirmed, for improved relationships and understanding between the shop stewards and their immediate supervisors have resulted. All the shop stewards in the group have now taken the course, and many have sent letters of appreciation to the management.

Potential students were earmarked in the various works comprising the I.S.C. group, and invited to attend the course of training at Avonmouth. There were no refusals. Each intake numbered eight men. While in Avonmouth those from other works were accommodated in "The Residence," the staff's canteen-cum-hostel, and were paid normal wages plus an average bonus, usually calculated over the previous eight weeks. This arrangement met with general satisfaction.

Men who spend most of their days working with their hands do not always find the transition to the student's sedentary lot an easy matter. Knowing this, the management provided a curriculum which was nicely balanced between the passive and the active, with a visit to Avonmouth's various plants, offices and workshops as the first period after lunch each day.

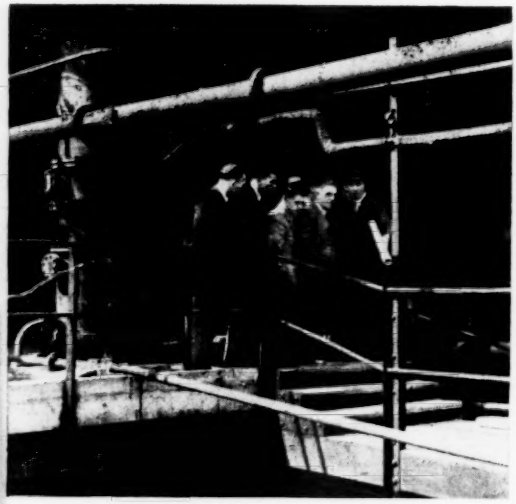
Each course lasted two weeks, and started with a résumé of the development of the Imperial Smelting Corporation and its associated companies forming the Consolidated Zinc Corporation Group, including the Australian producers of the ore from which the zinc, sulphuric acid and other chemicals are produced. On this foundation, a really valuable curriculum was built up, packed with information which should stand the trainee in good stead for the whole of his working life.

All through the course the fact was emphasised that employees, as well as employers, have their responsibilities. Section 119 of the Factory Act, 1937—the only section of the Act in which employees' obligations are mentioned—was discussed with the students. A clear distinction was drawn between joint negotiation (or collective bargaining) and joint consultation; and the shop stewards were reminded of the following "important points in the technique of negotiation or bargaining":

"1. It is not necessary or usual to extract the uttermost farthing in any bargain. It is a mistake sometimes to try.

"2. Try and see the other man's point of view. You can sometimes give him much that costs you little.

Above: The deputy general manager opening the course.



Members of one of the shop steward's courses on a tour of the Avonmouth plant.

Mechanical accounting—what the machines do and how they work, explained by the department supervisor.

"3. Make it easy to accept.

"4. Never get slick. The value of a bargain is what was in people's minds at the time, not what can be enforced from a piece of paper.

"5. Do not concoct a case, as it is usually found out and destroys your credit for years afterwards."

Frankness is one of the characteristics of the course. For instance, here are some of the things the shop stewards were told about incentives and productivity:

"The present economic situation has highlighted the need for emphasis on productivity, or output per man, and many and varied suggestions have been made on ways and means of doing this. Coupled with this is the feeling, whether right or wrong, among many supervisors that workers are not what they were. There is not the same will to work as there was; effort and enthusiasm are lacking; work is skimped and the quality is far from what can be achieved. This also has created the desire to find some method of reviving the will to work and the desire to 'make a good job of it.'

"Several factors may account for this change in attitude to work. The greatest is that in the full employment era the threat of unemployment no longer acts as a spur to good work and high productivity . . . but in these days we must surely try and find other ways of achieving our aim than recreating a social evil. Does the answer lie in the incentives, and if so, what kind of incentives?"

Then followed an examination of the various types of incentive—money, security, good working conditions, pension schemes, pride in craftsmanship, a sense of routine and order, social approval, promotion prospects, etc. Finally, the shop stewards were told: "Whatever the whole answer, and this will vary from works to works, there is no doubt that if full employment is to continue, the problem of recreating a will to work and a desire to put one's back into it will have to be solved."

The students were taken in some detail into the intricacies of personnel management.

THE COURSE EXPLAINS:

Uses of I.S.C. Products.
Industrial Training.
Joint Negotiation.
Principles of Time Study.
Factory Discipline.
Factory Law.
The Office Link with the Works.
Wages Compilation.
Treatment of New Workers.
A Foreman and his Problems.
Personnel Management.
Incentive Schemes Problems.
Planned Maintenance.

It was stressed that personnel management in its broad sense is not the duty of specialist officers. It consists of the handling of people, and "is carried out well or badly by shop stewards, foremen, engineers, managers and any other employees who have to tell a fellow worker what to do or how to do it." The job of the specialist officer, it was stated, is to help these people by indicating ways in which a good team can be built up. Students were then given an insight into the type of problem which had to be solved by personnel departments.

A great deal of time on the course was devoted to job relations, dealt with by T.W.I. methods. (Incidentally, T.W.I. has been given to all supervisors, including the general manager, in the company.)

It is interesting to note that the I.S.C. policy of putting their employees in the picture has produced a complementary reaction from those employees.

Recently members of the rank and file at Avonmouth asked whether they, too, could not be provided with a background training course to give them an insight into the company's operations. The result was a course, rather more elementary than the one described above, which was held in weekly sessions in the employees' own time. About 300 people took advantage of the opportunity. The company provided an evening meal and transport at the end of each session.

Let us Pool our Suggestions Scheme Ideas

By M. W. JUDE
Publicity Manager, British Industrial Plastics Ltd.

AT the beginning of the year my company launched in its works a suggestions scheme. This was carefully prepared under the auspices of a small committee and took the form of wide coverage by posters, varying from double-crown to 8-sheet sizes. Now that the first year's posting is drawing to a close, the author, as ideas initiator, is beginning to think in terms of next year's campaign. Somehow a new approach has to be found—something spontaneous that will tickle the workmen into a productive frame of mind, and carry on the good work already initiated with some measure of success.

It appears that this is a common problem. Two of our posters were recently reproduced in this journal and this resulted in a number of letters being received from others responsible for suggestions campaigns in their own works. All were faced with the same difficulty—how to keep fresh and original, year after year, the same old theme. Even for a publicity man, the continuance for indefinite periods of stimulating propaganda of this type can cause enough headaches. But it must be remembered that many companies do not advertise, or only advertise in a small way. They may not need to employ an advertising manager or have the versatile brains of an advertising agency behind them. However, they *do* need works publicity for their suggestions schemes and the responsibility is often delegated to individuals or small committees. The nature of their executive responsibilities, however, may afford little time for the preparation of publicity matter, and in any case it is only in the nature of things that ideas gradually run dry.

London Electricity Board's suggestion scheme is being brought to the notice of employees by two-colour humorous posters (like this one) by Starke; by double-crown photographic posters in three colours showing employees a work; and a vest pocket booklet, issued to everybody in the organisation, explaining the kind of suggestions wanted and how to put them forward.

One correspondent asks whether he may borrow our illustrations and alter the wording to suit his requirements. Another would like a straight exchange of "overs." And from these requests springs the germ of a suggestion. *Why not start a central exchange bureau to which everyone can apply?* At present, some hundreds, perhaps even thousands, of individuals or committees throughout the country are struggling for new ideas—ideas with which, perhaps, their next door neighbours could supply them. Then, again, on a time and cost basis the production of all these individual schemes with their short runs is expensive and wasteful. Whereas, on an exchange basis, the cost per poster could be considerably reduced.

This is how it might work. First, obtain the names of all interested in exchanging ideas and let each send to all the others samples of his work, *with free permission for them to use any ideas or illustrations.* Next, having built up this list, find out who is prepared to make a straight exchange of "overs." Small numbers of firms sponsoring similar kinds of schemes could easily team up to this end. Finally, it might be possible to circularise to all members of the "exchange circle" illustrated broadsheets showing them the types of posters available from other sources.

One of the posters displayed by our contributor's own firm. Since the B.I.P. scheme began in March, over 100 suggestions have been received. Forty are being developed.

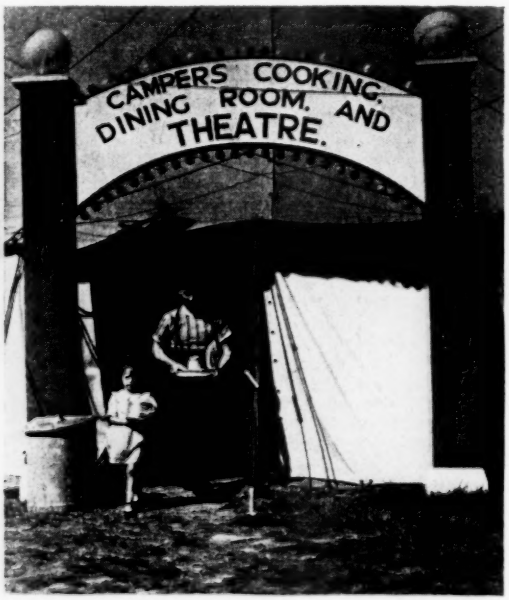
There can be little objection, surely, to such an idea. After all, we are all aiming at the same goal—higher productivity—and should be prepared to help each other. No campaign is so good that it needs copyrighting: in fact, the more constructive the theme, the more widely it should be circulated.

The difficulty lies in finding someone to operate the scheme. Ideally it might be sponsored by some official body, such as the Institute of Personnel Management, which has an essential interest in works relations and the necessary mechanism for circularising members and handling enquiries. In the meantime, why not start your own exchange scheme? Your ideas may be like a breath of fresh air to your neighbour; his may be a godsend to you!

Some of the 500 tents in the Standard Motor Company's holiday camp at Weston-super-Mare. Camp beds and blankets were provided.

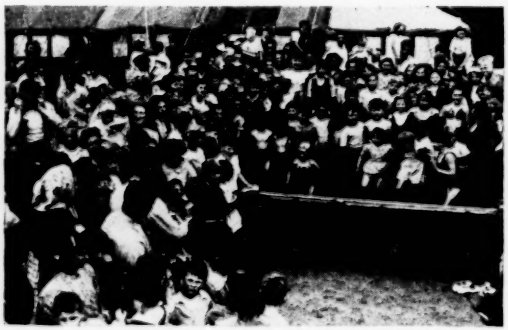
From July 29 to August 10, employees and their families—totalling 2,000—disported themselves there.

Holiday Camp for 2,000 Employees



There were marquees for cooking, dining and entertainment. Local traders erected "shops" on the site.

Right: Staffs manned first-aid and fire posts day and night. (Note the "nurses," left.)



No charge was made for the hundreds of children who accompanied their parents.

They Feed Themselves

A CANTEEN directly administered by employees was introduced nine years ago, at the suggestion of the company in question, because of continual complaints about the standard of meals when the canteen was run by a contractor.

An agreement was drawn up jointly by the company and employees, discussed by a committee representing all employees, and signed on their behalf. Under this agreement the employees took over all catering arrangements, and responsibility for food supplies, cooking, serving and any other service connected therewith. The company retained final legal responsibility for the canteen.

After the agreement was signed the factory workers set up a committee of six men on which two extra members were co-opted—a member of the office staff to act as secretary and treasurer, and the personnel manager. Committee members are elected annually. The work of the committee, which has the full confidence of both management and workers, has been the most important single factor in the success of the canteen. They have a sincere interest in their job and the extent of their voluntary service would be difficult to exceed. They are all full-time employees of the company but get no compensation for their extra duties except for a small honorarium if the canteen has a profitable year. The committee meets monthly to examine the accounts, and every six months there is a general meeting of canteen patrons.

Staff Selection

Great care has been taken by the committee in the selection of canteen staff, especially the manageress, who purchases all supplies, engages her own staff and decides on promotions. The committee retains responsibility for deciding wage rates. Canteen staff are entitled to certain bonus payments, but not to sick benefit, etc. Practical details such as national insurance and deductions from wages are dealt with by the committee secretary.

The canteen serves some 1,900 workers and staff in a heavy industry. It has seating accommodation for 250, and serves about 430 lunches each day at two sittings. It is not open for night-shift or overtime workers, but supplies them with packed sandwiches, tea and sugar, etc.

The six committee members all have jobs in the canteen during the lunch-time rush—checking meal tickets, cutlery, etc., helping in the kitchen, dealing with complaints, visitors, and so on. They have their meal together afterwards, and discuss the day's business, for which they are allowed an extra half-an-hour.

The aim of the committee is to produce the best meals at the lowest cost. Charges for meals therefore fluctuate; if profits are good in one year, prices are reduced, and if there is a loss they are increased. In the past eight years, prices have varied form 5s. to 6s. 6d. for a weekly ticket for a three-course lunch. Special meals at reduced prices are available for boys and apprentices.

The balance sheet for 1949 showed a profit of £70 for 11 months, and the canteen has been kept solvent during the whole period it has operated. The canteen committee bears the cost of maintenance and depreciation of equipment, but responsibility for buildings and plant are borne by the company. The committee has always paid attention to efficient administration, with the result that the number of complaints has gone down and the number of customers has gone up.

(Condensed from *Personnel Management*, July/August, 1951.)

* * *

HOW TO TREAT YOUR FOREMAN

NINE experts from the Bureau of National Affairs, Washington, D.C., were invited to pool their ideas on how management should treat foremen. The following practical pointers emerged from their discussions:

(1) Clearly define the foreman's job and its place in the organisation. Then let him know about it.

(2) Listen to your foreman. Benefit from his knowledge of what goes on at the "firing line."

(3) Keep the personnel department as a staff aid to foremen—not as a crutch.

(4) Do not by-pass the foreman in making policies he is expected to administer.

(5) Train the foreman's boss. Often the foreman's weaknesses are those of his boss.

(6) Keep the foreman informed of what is going on.

(7) Have a definite benefit programme for foremen; make it more liberal than for the shop.

(8) Set up a fair pay plan, with a clear differential between the foreman's pay and that of the men who work for him.

(9) Impress upon foremen that they speak for the management. This means that management must back up foremen's decisions.

(10) Do not forget the little things that help give the foreman's status; not having to punch a clock, etc.

(11) Give proper recognition to foremen for extra performance and activities.

(12) Set up methods for picking well qualified men, then train them thoroughly.

(13) Do not let a union contract deprive a foreman of job security in the shop if he has been promoted.

(14) Last, and most important. Know your foreman intimately and on a cordial, lastingly sound basis.

(Condensed from *Factory Management and Maintenance*, June, 1951.)

* * *

TEAM SPIRIT

TO celebrate the growth of the firm for over 100 years, John Laing and Son Ltd., have published an excellent book which traces the story of a small family concern growing step by step into a world-wide organisation yet never losing the "human touch."

Referring to the firm today, it records that the total payroll in Great Britain exceeds 10,000. To provide for the well-being of such an "army," distributed over hundreds of sites, some of them in remote places, is a big undertaking in itself. Often the firm's welfare officers (there is one resident on every site) are responsible for meals, film shows, whist drives, religious services and even such details as the collection and delivery of letters and the mailing of money to wives and dependents.

Yet the provision of bodily comforts is regarded as only a first step in the task of "man management." The next stage is more subtle, and consists of the creation of a favourable climate in which every man and woman can grow into what every man and woman should be—100 per cent individual and a 100 per cent member of the team. The secret lies in opportunity, the book states, and every youngster in the firm knows that even the directors reached the top "the hard way," and that he has the opportunity to do the same.

The book also deals with the lighter side—games and hobbies, plays and concerts, and outings.

Boss: "Shame on you. Do you know what we do with office boys who tell lies?"

Boy: "Yes, sir, when they get old enough the firm sends them out as salesmen."

(Reproduced from *Spurmonews*, Spurling Motor Bodies Ltd.)

News from House Magazines

Advance (Bulmer and Lumb Ltd.) reviews the training scheme operating at the Prospect Mills for the past three years and gives some interesting facts and figures. Total number of trainees 218; 18 years of age and over, 125; 15 to 18 years, 93. Trainees now working in mill, 85 (39 per cent); 18 and over, 37; 15 to 18 years, 48. Trainees left before completion of training, 55 (25 per cent); 18 years and over, 36; 15 to 18 years, 19. Trainees left after service in mill, 78 (36 per cent).

Eliminating trainees who left before completing training, the results are as follows: total number of trainees, 163; trainees working, 85 (52 per cent); trainees left, 78 (48 per cent). In general it was found that more juveniles stayed than adults; average time worked by trainees before they discovered they did not like the job was six days; average time worked in the mill after training and before leaving was seven months. On average it took six or seven weeks to train an operative; after this period efficiency was about 75 to 80 per cent.

Ingot News (Richard Thomas and Baldwins Ltd.) reports the visit of the Chancellor of the Exchequer to open the firm's new steel works at Margam. It also gives details of an essay competition for employees with a minimum of £375 offered in prizes. Competitors are divided into four classes: operatives over 21 and under 21; and staff over 21 and under 21. Subjects include: "Full employment cannot be achieved under a planned economy without direction of labour;" "If you were a company education officer, what new facilities would you introduce?"

Mars Magazine (Mars Ltd., Slough) reports on the third year of the Mars social security fund which now has a total value of £230,000. This provides for sickness benefit, pensions and life assurance.

Opportunity (Vernon and Co. Liverpool) carries an application-for-employment form to be completed by any present employee who is able to introduce a prospective employee to the firm. For every applicant engaged, the employee who introduced her receives a bonus of 10s.

Simplex and Creda News (Simplex Electric Co.) records that 34 employees received awards for suggestions during the first twelve months of their scheme.

Stantonian (The Stanton Ironworks Co. Ltd., nr. Nottingham) reports that the number of employees who have earned long-service certificates has reached 1,240. It also records that 69 suggestions have obtained awards during the period of five months.

Thorncliffe News (Newton Chambers and Co. Ltd., Thorncliffe, nr. Sheffield) reports that over 170 young people received bonus awards at the recent prize-giving at the Business Centre, when Sir Harold West stated that a new engineering apprentices' training centre and gymnasium were to be built. Thousands of people enjoyed the Festival week, which included exhibitions, competitions, concerts, etc., and a "skylon" built by apprentices.

Vauxhall Mirror (Vauxhall Motors Ltd.) carries an article on the twenty-first birthday of their recreation club. The treasurer reported that for the first time turnover had topped £200,000 in a year. The club runs the canteen and all sports and social activities.

* * *

GIVE YOUR VISITORS A REAL WELCOME

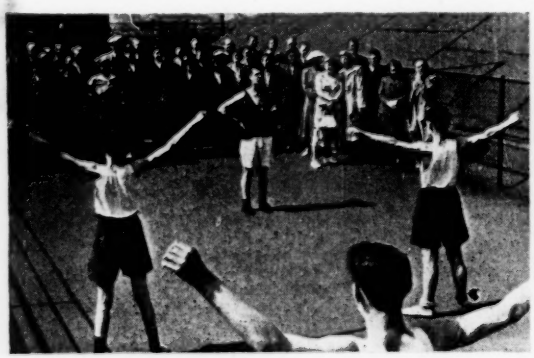
AN entertaining and instructive booklet on how to treat visitors to the factory—whether they call with million dollar orders in their pockets, or merely to read the meters—has been prepared by Tube Investments Ltd. for the guidance of all concerned in their subsidiary companies.

While a light approach has been adopted, the subject is treated seriously, for the organisation appreciates the value of good public relations and the importance of impressions gained by visitors to the factory.

The guide deals in detail with various types of visitor, their probable needs, and how these can best be met. Treatment of the visitor upon arrival, the importance of remembering names, the value of a cup of tea or a cigarette, meals, entertainment, especially where a visitor is staying overnight, hints on how to keep the conversation going, the special problems involved in entertaining foreigners, special hints on the treatment of journalists, and planning of factory tours are all carefully considered and guidance given.

Tube Investments Ltd. have given permission to the British Association for Commercial and Industrial Education, Management House, Hill Street, W.1, to publish a special edition for general sale.

IT WAS PARENTS' DAY AT THE GAS BOARD



Apprentices of the North Thames Gas Board acted as hosts to their parents at the annual Parents' Day, held recently at the Board's Research and Training Section, Watson House, Fulham.
Parents are given this opportunity to see their sons at work and at exercise, which is a daily feature of their training. Mr. R. N. LeFevre, training and education officer, and his staff were present to answer any questions about the boys' training and recreational activities.
The pictures show (left) Bernard Snowdon, captain of the Apprentices' Boys' Club, conducting a demonstration physical training class on the roof of Watson House; and (right) Mr. Henry Hicks, seen here with his wife and apprentice son, Ronald, inspecting a gas engine made by senior apprentices. Mr. Hicks is the leader of the First-Aid Class at the Board's Brentford works.

Training Leaders for the Works and Design Department

By JOHN SANDERS

This article explains how a firm of scientific instrument makers select and train their apprentices, and how they make sure that time, effort and money are not wasted on lads who really lack the right qualities. In six years, the scheme has proved itself a great success.

ONE of the leading British firms of designers and manufacturers of scientific instruments—especially those used for navigation at sea and in the air—have for nearly six years been operating with considerable success an apprenticeship scheme which was devised with the object of providing the company with the nucleus of trained and experienced leaders in the design department and in the works. The firm is Kelvin and Hughes Ltd., which has factories at Barkingside, Essex; Basingstoke, Hampshire, and Hillington near Glasgow, with headquarters offices in the City of London.

For a good many years it has been the policy of the organisation to give every encouragement to boys who wish to make engineering their career. It was thought that the best way to do this was by operating an apprenticeship scheme within the factories of the group (which includes Marine Instruments, Kelvin, Bottomley and Baird Ltd., and other firms). One of the problems inseparable from planning such a scheme, however, is how suitable candidates for training can be selected and how their ability to benefit from the technical education available is to be assessed before they begin the course, so as to ensure that time, effort, and money are not wasted on lads who at a later stage are plainly seen to lack the qualities which the scheme seeks to bring to the surface and develop.

This apprentice is practising the soldering of power leads.

It was at the Barkingside factory that the Kelvin and Hughes apprenticeship scheme was initiated and therefore I will describe it as it has been applied in that establishment.

When the scheme was about to be translated from paper to action the factory employed 171 boys. It was felt desirable to examine each one to find out which had the qualities of character and temperament necessary for success in an engineering career. With the problem of selection in the forefront of their minds the executives responsible for the scheme approached the National Institute of Industrial Psychology and obtained the valuable assistance of that organisation in attempting to work out a successful method of selecting and training young male employees between the ages of 14 and 18. On-the-spot investigations into the problem were made by the institute's staff and eventually a number of tests were devised for measuring the prospective pupil's natural aptitude in three categories: intelligence, theoretical or mechanical ability and manipulative ability.

In January, 1945, a panel of five people was formed at the Barkingside factory and is now known as the technical education and works training panel. This body is responsible for the selection tests, technical education and works training of all the boys who enter the apprenticeship scheme. It is made up of research scientists, factory executives and shop foremen.

Plenty of Recruits

Applicants are sought with the aid of the youth employment committees and the technical colleges and schools in the neighbourhood of the factories. Constant liaison is maintained between the Kelvin and Hughes factories and these organisations and institutions, so that today the scheme is well known and there is never any lack of applicants.

Not only the tests but the first interview with the boy is carefully planned. It follows a procedure laid down by the N.I.I.P. Special attributes looked for are a good school record (preferably of grammar school or good secondary school standard), good appearance, co-operation, keenness, initiative and stability of character. According to his performance in the interview the boy is graded under the five points system. If he is then considered to be of the standard required, he is asked to attend again and compete against other candidates in the aptitude tests.

These tests are, in the main,

His course completed, he works on a periscopic sextant.

A 19-year-old at work in the production drawing office.

Operating a lathe in the machine shop, where he spends six months.

simple and straightforward, but each has been thought out with a great deal of care for the purpose of assessing the applicant's natural ability in one particular field. It is on the result of these tests and the first interview that the decision is made of whether or not the lad is to be accepted for the apprenticeship scheme.

To test the boys' manual skill, they are required to reconstruct a simple mechanism which has been broken down; they have to restore ball-bearings to their original position after they have been disturbed and in so doing use first their fingers and then a tool. Other manipulative tests are made, and all are timed.

Ability Tests

The applicants' mental abilities are judged by mental and psychological tests similar to those which were in use in the Forces during the war. An example is the picking out from a group of words those which bear some relation to each other. Simple arithmetical problems are also set, short sentences have to be constructed and easy questions on elementary physics are put to the boys.

To ensure fairness and uniformity in administering and marking the tests, each one is completely standardised and the grading is automatic, depending on the answers the lads give. Each test has a time limit and the complete examination lasts 3¼ hours.

If a boy succeeds in his first interview and attains a high grading as a result of his selection tests he is called for a final interview with the panel, which is responsible for engaging apprentices.

Lads accepted for the scheme are taken in twice a year—in January and July—and when he is accepted the lad takes his place in the factory at the next intake. He then begins a six months' probationary period, at the end of which, if he has proved satisfactory, his parents or guardian are asked to sign a five years' agreement for him.

Now his works training really starts. Each apprentice is dealt with, as far as possible, individually, according to his interest and progress in the scheme. In all or most of ten departments he spends six months at a time. At the end of each half-year he is further graded by the foreman under whom he has worked. This grading is also based on the five points system and is standardised, so that a complete record of the lad's progress throughout his career as an apprentice is kept. If at a suitable stage the boy feels he would like to specialise in a particular branch of the firm's work he is given every encouragement and assistance to do so. This happens with the majority of the apprentices at around the age of nineteen. Then, according to the aptitude they display, they soon find themselves either in the drawing office or the production office.

But as the firm wants a reasonable proportion of men who are both highly skilled and capable of holding executive positions there, a watch is kept on each intake for lads who have qualities of leadership.

Concurrently with his training in the works each apprentice attends a technical college one day of each week. He is paid the normal rate for that day. He also attends one evening a week voluntarily. Courses taken are the National Certificate in mechanical or electrical engineering, machine shop and production engineering, telecommunications, or applied optics and typography (these last three subjects are of particular value to apprentices who are later to be engaged in the design and manufacture of intricate and delicate instruments for the Admiralty, War Office, Air Ministry, Ministry of Supply, the Mercantile Marine, the B.B.C., and industries of many kinds.) Apprentices are also encouraged to sit for the Higher National Certificate or Inter. B.Sc. (Engineering).

Since this scheme was instituted at Barkingside, over 120 lads have been accepted there. Forty-four have completed their training. In recent months the scheme has also begun to operate at Basingstoke and Hillington. The average intake is about fifteen apprentices a year at each factory.

Kelvin and Hughes have great faith in the future of the scheme and in less than six years it has proved entirely satisfactory both to the company and the apprentices themselves.

Top Management Also Needs Its Health Check-Ups

By Dr. L. G. NORMAN

Chief Medical Officer, London Transport Executive, and President of the Association of Industrial Medical Officers

Are senior executives more liable than most men to anxiety neurosis, coronary thrombosis and duodenal ulcer? Not proven, says our contributor; but many physicians believe that they are. Dr. Norman strongly recommends, therefore, a general medical overhaul for a company's most highly valued staff at, say, 50 years of age and every few years thereafter.

MUCH interest has been aroused recently in the health of men who occupy senior positions in industry. Particularly in the United States the view is widely held that these men are more liable than other people to suffer from illnesses such as anxiety neurosis, coronary thrombosis and duodenal ulcer, which are believed to be associated with the stress and strain of modern life. It has even been suggested that a man is not a properly qualified director until he turns up at meetings with his bottle of indigestion mixture or bismuth tablets.

The decisions of these men affect all the staff working under them; it follows that their decisions should be unclouded by dyspepsia or neurosis if good human relations, a vital factor in productivity, are to be maintained. Clearly the health of its executives is an essential concern of any undertaking. After all, in most business undertakings a good deal of effort is put into the maintenance of important machines; it is equally reasonable to take particular care of the maintenance of the most important human material, the directors and executives.

What, then, is the truth about this suggestion? In the first place, there is no real evidence that executives are in fact more liable than other people to these particular illnesses. Many of them might not unreasonably resent any suggestion that they were weaklings in this respect. And yet, without any figures to prove the contention one way or the other, most physicians who work in this field have the general impression that men who occupy responsible positions do in fact suffer more from these stress and strain diseases. Some investigations are now being undertaken by the Medical Research Council which will undoubtedly give an authoritative answer to this problem, particularly in regard to the heart diseases, coronary thrombosis and angina pectoris. Both these conditions are due to coronary artery disease, which has become a good deal more common in recent years, and which is responsible for most sudden deaths—often of men in the prime of their working life.

Of course, executives are a small and highly selected group and it may be that the driving force which leads them on to positions of authority is a characteristic of the same personality-type which is itself liable to coronary artery disease. Whatever the explanation, there is no doubt that a number of firms have been unfortunate in losing the services of several executives, one after the other, from these diseases. It must be remembered, however, that they are more common in elderly men—who generally occupy the senior position. Golf is probably the most dangerous outdoor game from the point of view of high mortality—but many of its addicts are in the higher age-groups where most coronary artery disease occurs.

In an attempt to take extra care of their most valuable human material, a number of firms in the United States have instituted periodic health examinations of their executives. These have usually been undertaken on a voluntary basis and the results so far published show that in large firms, such as the Consolidated Edison Corporation and Standard Oil Company, upwards of 50 per cent of executives volunteer in the first year, the proportion increasing to 90 per cent or higher in subsequent years.

Early Diagnosis

These health examinations are undertaken with great thoroughness and involve many biochemical tests as well as a routine clinical examination and various X-rays. Where the annual overhaul involves several days' residence in a pleasantly situated clinic, the rest itself may be beneficial and the tests can do no harm. *As a result of these examinations it is claimed that many minor deviations from health are detected at an early and correctible stage and that where there are more serious conditions, the appropriate treatment is given earlier than would have been possible without the early diagnosis afforded by the routine health check-up.*

It is axiomatic that in nearly all diseases, the earlier treatment is given, the more likely it is to be successful. Where cure is impossible, the patient is given advice which

THE CASE FOR ROUTINE "MEDICALS"

- **Poor health of executives threatens good human relations in factory and office.**
- **Machines get a regular overhaul: why not the most valuable human material?**
- **Early treatment may cure; neglect often kills.**
- **In some American firms, 90 per cent of the executives have volunteered to have periodic health examinations.**

enables him to live well within his physical limits and enjoy a useful working life. Many American firms are, by these means, doing everything possible to maintain the health and efficiency of their executives at concert pitch.

In this country a few firms arrange periodic medical overhauls for their senior staff, either at a clinic or by the firm's own consultant. There is no doubt that an experienced physician can usually tell when the early signs of stress are beginning to appear and his advice may result in a rearrangement of work beneficial both to the health of the executive and to the contentment of those under him. There is no provision for routine health examinations to be undertaken through the National Health Service. Routine health check-ups are therefore undertaken privately by individuals or under arrangements made by the firm concerned.

The disadvantages of these periodic health examinations are the danger of producing hypochondriacs by making the individual worry too much over his own health and the risk of leaving the patient with a sense of false security after his examination: he may neglect symptoms which develop a few weeks later owing to some new illness, knowing himself to have been passed fit so recently. Wise advice should prevent both of these occurrences. A few executives take the line in opposition to health examinations that if they have any disease developing, they would prefer not to know it, but this ignores the fact that treatment, if given early enough, is likely to produce a complete cure.

The principle of routine health examinations is now becoming accepted in this country as a result of the mass radiography surveys which are being undertaken on an increasing scale. But it is to be feared that we are a long way from recognising the benefits to health and happiness that can come from a general medical overhaul at, say, age fifty, and every few years thereafter. It is a policy that individual executives would do well to adopt for themselves and that managements should consider introducing for their most highly valued staff.

Rest Breaks for Executives

THE value of rest-breaks for factory operatives has long been recognised, but the claims of executive and senior staff have not always received the same consideration. More and more firms are now realising that giving senior staff an occasional respite from pressure of business pays dividends in renewed vigour and interest in the job.

The recuperative value of such a "break," however, depends upon the right environmental conditions. One place where these are to be found, and which has been inspected by a member of this journal's staff, is the Manor Hotel, Duddleswell, Sussex. Situated in Ashdown Forest (an hour's run from London), it provides facilities for golf, riding, tennis, billiards and dancing. Extensive grounds include a "miniature Kew Gardens," while the surrounding country offers many delightful walks. Food is excellent, and the hotel retains the atmosphere of a comfortable country house.

A large lounge is available for meetings, and there is suitable accommodation for small residential conferences. The value of such conferences for all grades of management is being increasingly appreciated. The change from the workaday environment makes for freer discussion, and the periods of leisure give invaluable opportunities for members of the staff to get to know one another and exchange ideas about their respective jobs. The proprietors, Mr. and Mrs. Langton, are willing to make special arrangements and quote terms for firms interested in securing accommodation either for individuals or for groups.

Room for a rest, or a conference.

Last year H. A. Sheppard and Co., Tunbridge Wells insurance brokers who specialise in cover for amateur sports clubs (including factory and office clubs), dealt with nearly 3,000 claims for injuries to players.

The End of Order 1305

ORDER 1305 (Conditions of Employment and National Arbitration Order), has been replaced by the Industrial Disputes Order, 1951, which came into effect on August 14.

The new Order, which is experimental, contains no provisions for prohibiting strikes or lock-outs, but the Minister has discretion to refuse access to the new Industrial Disputes Tribunal where action is taken resulting in a stoppage of work or a substantial breach of agreement.

There is no general requirement on employers to observe recognised terms and conditions of employment, but the Order provides machinery for settling issues of this kind in respect of a particular employer.

The provisions of the Order are intended to strengthen voluntary systems of negotiation and to uphold the sanctity of agreements and awards. For this reason, access to a Tribunal is limited to employers, organisations of employers and trade unions which usually take part in the negotiation of agreements through the voluntary machinery of the industry, where such exists. Where there is no voluntary negotiating machinery, access is limited to the employer concerned and the union which represents a substantial proportion of the workers.

If the voluntary machinery, or any other steps taken by the Minister, fails to produce a settlement, the Minister should refer the dispute to the Tribunal within fourteen days of the date on which the dispute was reported to him, although he may extend this period if he thinks it desirable to do so.

Such matters as the employment or non-employment of a worker and claims for reinstatement are excluded from the Order, for experience has shown that these cannot be settled satisfactorily by compulsory arbitration.

Any agreement or decision arrived at by the Industrial Disputes Tribunal becomes an implied term of contract between employer and workers and cannot be varied except by agreement between the parties, a subsequent Tribunal award, or a new agreement for the industry.

Centenary Lectures

Disablement and Working Conditions

THE second in the series of centenary lectures organised by the Ministry of Labour was given by Dame Georgina Buller, on "Eliminating the Wastage of Disablement."

In a little over four years, she said, nearly 900,000 disabled persons had secured employment. This was an impressive figure, even allowing for the fact that it probably covered some individuals more than once. It was a tribute to the Ministry of Labour's officers, to employers and to the disabled themselves. In April last, only 5.8 per cent registered disabled were unemployed.

Even so, the fullest and best use of disabled labour called for much more study and research than had yet been devoted to it. (*See "Personnel Management, Welfare and Industrial Equipment," August*, 1951, *page* 82—*Ed.*) Much valuable data already existed which could be of service in indicating the kind of occupations which have been found suitable for particular disabilities. Many more opportunities could be found by further investigation.

With the development in the manufacture of artificial limbs and employment aids, the problems presented by the limbless were less difficult than those of many other disabilities, for example, spastic paralysis, disseminating sclerosis, and epilepsy. It was hoped that medical science would find new methods of treatment or prevention for such conditions, including the gastric group which loomed so large in industry today. This one reason for the closest co-operation between medicine and other aspects of rehabilitation. There should be a keener realisation in the medical profession both of the possibilities and problems on the industrial side, and more recognition of the fact that the hospital was no watertight compartment but an ante-room to life.

Trained social workers could help those disabled who did not readily take the initiative in seeking employment. There were some who would always need to work at home, and much greater use could be made of such outworkers.

In the third lecture, on "The Effect of Environment on Health and Efficiency of the Industrial Worker," Professor R. E. Lane said we should try to reduce the enormous gap between established knowledge and practice. The Industrial Health Research Board had been carrying out research for thirty years, but the results still awaited wide application. It was industry's responsibility to provide good working conditions.

Much of the industry in this country, said Professor Lane, was carried on in small units; some very good, some very bad. The work of factory inspectors was mostly educational, but it seemed there would have to be many more inspectors if they were to have any hope of success.

Discipline in our factories could no longer be secured by the old methods. New incentives must be found and the nature of these would inevitably have a bearing on the health of the workmen. A lowering of living standards, resulting from inflation, and the housing shortage which tethered a man to his job, created frustration and psychological unrest.

Proper Training Needed

Future progress, Professor Lane continued, lay in education and research. Education should not only be provided for all grades of management, but also extended to the workmen. The trade unions should take an active part. The other group for whom education was necessary was the specialist health workers; doctors and nurses entering industry should be properly trained. Employees' health depended on economics and education, and industry was largely responsible here. Its responsibility was not fulfilled by handing the workman a pay packet.

Women Work on Rail Track

BECAUSE of the shortage of permanent way workers in the Midland Region of British Railways, women are being recruited to take the place of men. Although they are not expected to do a platelayer's full job, they are able to trim up ballast on the track, oil fish plates and paint, and do weeding and other light tasks.

Power Cuts may Change Work Pattern

REPORT of the electricity sub committee of the Joint Consultative Committee states that the supply position is likely to be more serious than at any time since 1947. Industry alone cannot hope to spread the deficit, and commercial and domestic users are to be encouraged to co-operate through the formation of regional committees.

The sub-committee recommends that peak hours of 8 a.m. to 12 noon, and 4 p.m. to 5.30 p.m., Mondays to Fridays, throughout the period from November 1, 1951, to March 31,

1952, should apply equally to all consumers.

Industry is asked to reduce the peak load by 600 m.w. as its share of the 1,200-1,300 m.w. deficit, and it is thought this saving could be effected if industry tries to spread 20 per cent of last winter's total load. This would mean alteration of customary working hours, the introduction of double shifts, or a switch to night work. The National Joint Advisory Council have promised the support of both sides of industry. British Electricity Authority have undertaken to try and institute better methods of warning important industrial users of impending power cuts.

Plea for More Handling Machines

IN methods of freight handling, no startling difference in the standard of achievement in the two countries was observed by the Anglo-American productivity team, but the visit to U.S.A. revealed important variations in techniques and methods, and in the attitude to mechanisation.

U.S. employees have a fundamental objection to unnecessary physical effort, and the team recommend that British trade unions should encourage the development of "machine consciousness" among their members and co-operate with local managements in the introduction of mechanical equipment for freight handling.

Commenting on the general high level of commodity production, the report states that the average American constantly strives for the commodities offered, urged on by his womenfolk who want articles which, though unattainable luxuries to the ordinary British housewife, are in common use in U.S.A.

"Britons Work Harder"

REPRESENTATIVES of the United States pressed metal industry, on a reciprocal visit to this country, have been impressed with the speed and efficiency of British manufacture in the thirteen factories they visited. They were surprised by the newness of factory buildings and the excellence of machinery, and thought the standard of cleanliness was high, and lighting excellent.

British workmen, they found, worked harder than their American counterparts. If a job demanded great physical exertion the Americans made a machine to do it

They found that relations between managements and workers were more cordial than in the United States, and admired the canteens, sports grounds, and social centres attached to the factories. The same happy communal life, they said, was not common in the United States, where 75 per cent of workers travel to work in their own cars and often live twenty-five miles away from the factory. What amazed them most, however, was to find beer being served within the factories.

They also noticed that women in some factories were engaged on jobs usually done by men, but without receiving equal pay, as is the case in America.

Servicemen's Interests Safeguarded

WHEN a man (or woman) leaves civilian life to serve for a period with the Forces, he or his dependants may find themselves in difficulties. To protect his interests, the Government has passed the Reserve and Auxiliary Forces (Protection of Civil Interests) Act, 1951.

The Act applies to any National Serviceman or member of the Reserve or Auxiliary Forces, but *not* to men and women who joined the Forces on normal Regular arrangements, except when called from Reserve. Men doing work or training as conditionally registered conscientious objectors are also covered.

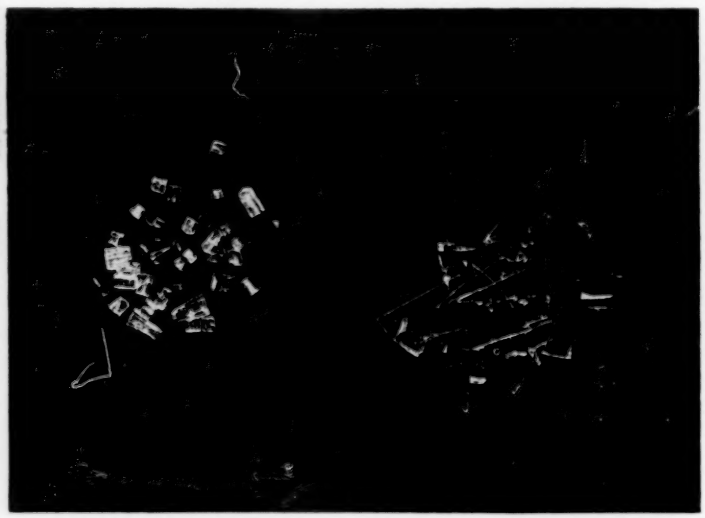
There is protection against legal seizure of property for debts, and protection of a business or professional practice. The Serviceman and his family are also protected against eviction from their home, and this includes accommodation in connection with his employment. If a man is engaged on a short period of service, his dependants cannot be evicted without leave of the Court; if the service is for a period of three months or more, the Rent Acts will apply.

The Act protects superannuation rights, industrial assurance and friendly society benefits, and empowers local and other public authorities to make up the balance of civilian pay to men and women serving for more than fifteen days.

99% At Work

DURING June, the total working population increased by 11,000 men and 24,000 women, partly due to seasonal rises in agriculture and catering. Fewer workers were employed in manufacturing; in spite of defence production, the number in metal, engineering and vehicle trades fell by about 9,000. Unemployment was still unusually low at July 16, when only 0.9 per cent of the working population were unemployed.

A LESSON IN EYE PROTECTION



Visitors to the small but effective industrial safety exhibition in the London showrooms of Thos. P. Headland Ltd., saw a revealing demonstration of the properties of toughened glass for spectacle lenses. Left: toughened glass splintered after (a) more than 100 blows from a $\frac{1}{2}$ in. 44-gramme steel ball dropped from a height of 54 in., and (b) perforation by a needle, followed by another blow from the ball. Right: an ordinary lens after one blow. **(Exhibition report on page 125.)**

WAGES NEWS AND VIEWS

AIRLINE PILOTS—New agreed rates for B.O.A.C. and B.E.A. pilots range from £815 per year minimum for a second officer, to £2,150 minimum for a senior captain (first class).

BUILDING WORKERS—Delegates to the annual conference of the Amalgamated Union of Building Trade Workers instructed their executive to press for a wage increase of 6d. per hour.

CINEMA WORKERS—New wages agreement for all grades of cinema workers — projectionists, technicians, cashiers and usherettes—gives increases ranging from 6s. to 14s. 6d. a week.

COTTON AND RAYON WORKERS—Higher wages, including recognition of bonus system, have been granted to 150,000 cotton and rayon spinning and weaving operatives. From the first pay day in September, a 5 per cent increase in wages will be paid, and in addition a special lump sum bonus will be distributed in the week before Christmas equivalent to 5 per cent on earnings during the first eight months.

DOCTORS—Minister of Health has offered to refer to an independent third party the question of the size of the central pool from which general practitioners are paid under the National Health Service, and has stipulated that a working party should be set up to formulate a revised plan for distributing the pool. The British Medical Association has agreed to accept the arbitrator's decision, and will assist in working out a new plan.

ENGINEERS—The annual conference of the Confederation of Shipbuilding and Engineering Unions, whose decisions affect over 2,500,000 workers, have decided to present a claim for an all-round increase of £1 for a 44-hr. week.

FIRE OFFICERS—Flat increase of £25 a year in pay rates of about 1,500 divisional officers, assistant divisional officers and station officers in England and Wales.

NURSES—The Nurses and Midwives Whitley Council have agreed on revised salary scales for senior grades of public health nurses and domiciliary nurses, retrospective from February, 1949.

POST OFFICE WORKERS—60,000 workers in the engineering, supplies and motor transport grades of the Post Office Engineering Department have received wage increases ranging from 9s. to 13s. for technical officers, from 6s. 6d. to 10s. 6d. for supply grades, and from 9s. 6d. to 12s. for motor transport mechanics.

POLICEMEN—Increased pay scales have been agreed by the Home Office, varying from £70 a year (constable's minimum) to £130 a year (chief inspector's maximum).

RAILWAY SUPERVISORS—Claim for a 10 per cent increase in basic salary rate for several thousand railway workshop supervisors has been presented to British Railways and London Transport. Present salaries range from £400 for an assistant foreman to £600 for a chief supervisor.

TRANSPORT WORKERS—Claim for a substantial increase in wages for some 58,000 road passenger transport workers has been presented to the London Transport Executive by the Transport and General Workers' Union. Between 60,000 and 65,000 drivers, conductors and maintenance workers of municipally owned transport undertakings, received wage increases ranging from 11s. to 7s. 6d. per week. The new agreement also incorporated for the first time the principle of the rate for the job for women employed as substitutes for men.

TRAWLERMEN—Employers' side of the National Joint Industrial Council for the fishing industry have rejected the trawlerman's claim for a wage increase.

N.H.I. Contributions

EMPLOYERS are reminded that increased rates of contributions laid down in the National Insurance Act, 1946, come into force on October 1st. New stamps will be available at Post Offices from September 24th.

There is an increase (divided equally between employer and employee) in the employed persons (Class 1) rate of 4d. for men and women over the age of 18, and 2d. for boys and girls. There are corresponding increases for self-employed and non-employed persons.

Recruiting Bonus

BRITISH RAILWAYS are offering a bonus of 10s. to each member of their staff who brings in a new recruit, and a further 10s. when the recruit has completed two months' service. This experiment is being tried to deal with the shortage of 30,000 men, the majority of whom are required for key jobs.

Exchange Visits

AS part of its war memorial scheme, Bournville Works Youth Club organises exchange visits with boys in other countries. Last month six German boys from the Ford motor works, Cologne, and ten Swedish boys from A.S.E.A., Vasteras, joined the Bournville camp near Cromer. At the same time six Bournville boys toured the Rhine and Moselle regions, and seven others were entertained at the holiday hotel of the A.S.E.A. near Gothenburg. Some have gone to France and Holland.

MINI-MAGNET WITH A SUPER PULL

Scientists of the American General Electric Research Laboratory have recently developed a cobalt-platinum magnet, said to be the most powerful in the world in small sizes. Picture shows (right) a cobalt-platinum magnet, about the size of a pencil eraser, lifting a steel bar sixteen times longer and twenty-four times heavier than that lifted by the well-known Alnico-5 magnet of similar size. The new magnet is not expected to replace Alnico, but to open new fields of use for permanent magnets.

Training Plan Wanted

DELEGATES to the annual conference of the Amalgamated Union of Building Trade Workers have called for the establishment of a comprehensive training scheme, financed by the industry, to replace the Government-supported master apprenticeship scheme which is ending.

Joint Employment Scheme

WESTERN Union countries have started, on a limited scale, a scheme for the exchange of workers. Lists of posts that can suitably be filled by workers from abroad are exchanged between the five countries in the Union. For the present they cover only those industrial and commercial occupations in which there is a constant demand for labour.

New Living Cost Index

A NEW enquiry into the cost of living is to be undertaken to provide up-to-date information on the

pattern of expenditure on household budgets, as a basis for a new index of retail prices. It is estimated that the enquiry will take about two years, but consideration is being given to a temporary modification of the present index.

Art Exhibition in a Factory

EMPLOYEES of T. Wall and Sons Ltd., ice-cream manufacturers, of London, Manchester and Edinburgh, have been invited to submit entries for an arts and crafts exhibition to be held in the firm's London factory.

Mr. Alun Phillips, Wall's personnel manager, has asked more than 5,000 of his firm's staff throughout Britain to submit paintings, sculpture, photographs, woodwork, needlework and embroidery. The exhibition will be held early next year, if sufficient entries are forthcoming.

"We believe this will be the first exhibition of its kind ever to be held in a factory," said Mr. Phillips. "If the suggestion is popular and the show a success, we shall consider either staging further exhibitions at provincial centres after the London show or arranging for out-of-town employees to come to London to see their exhibits hanging on the line."

Technical Manpower

THE Technical Personnel Committee, under the chairmanship of Lord Hankey, which dealt successfully during the war with questions of scientific and technical manpower, have been revived. They will review the demand for, and supply of, scientists and engineers, especially for rearmament.

Foundry "At Home"

FOR the first time in 140 years the Durie foundry at Leven, Fifeshire, of Henry Balfour and Co. Ltd., gas and chemical engineers, has been thrown open to wives and relatives who were able to see their men at work. The event was arranged in connection with Leven's Festival week.

"Structure of Industry," four wall charts illustrating raw materials supply, use of fuel and power, import and export trade, etc., have been produced by Educational Productions Ltd.

Cover picture: The provision of adequate heating, ventilating and dust-collecting equipment is essential to ensure clean working conditions and to prevent contamination in this pharmaceutical processing plant. *(Photograph by courtesy of Sturtevant Engineering Co. Ltd.)*

This Book Aims to Save Workers' Eyesight

Eye Protection For Industrial Workers. Ro.S.P.A. Technical Pamphlet No. 2. Royal Society for the Prevention of Accidents, 52 Grosvenor Gardens, London, S.W.1. 3s. 6d.

Produced by Ro.S.P.A. Industrial Safety Division for the guidance of managements who have the task of choosing suitable eye protection for workers, this pamphlet emphasises that in the protection of eyes, as in all other safety problems, the wearing of a safety device by the worker should be the last line of defence, to be adopted only if modification of the machine or process, or adoption of a safer method of working, have failed.

There are some processes, however, for which goggles or face shields offer the only possible protection, and the pamphlet discusses the various types available and their suitability for different jobs. It includes notes on the fitting and maintenance of equipment, on legal requirements for the protection of the eyes, and a useful bibliography for those who wish to study the subject further. A comprehensive and practical book which should be kept for reference.

Training Managers and Foremen

Training in Supervision. By A. M. R. Rule and D. H. Bramley. Industrial Administration Group, College of Technology, Birmingham. 2s.

The authors of this book have both practical industrial experience and a wide knowledge of training problems. They point out that whereas training for skilled craftsmanship has been practised for centuries, training for management has never been recognised until the comparatively recent development of large companies led to the emergence of a new professional management class. Even more recent has been the recognition of the need for education and training for management, as distinct from upgrading of the most technically efficient.

The qualifications and qualities needed for management are discussed and reference made to the value of psychological tests in the selection of potential managers. While supporting the need for academic training, they emphasise that practical experience is essential, and suggest that senior members of management should be willing to give their services to teach younger men. They also insist that management training should be a matter of Board policy, and direction of training the special charge of a member of the Board.

One section is devoted to the foreman's part in management, and the authors believe that training for supervision and training for management are one and the same thing. This is a point of view that may not meet with general approval, but like most of the book it is thought provoking, and there is still need for thought and experiment in the field of management training.

The Power of "Mysterious X"

Industrial Sociology. By Delbert C. Miller and William H. Form. Hamish Hamilton Ltd. 42s.

This valuable and comprehensive study of the relations between the worker and his social environment is unique in that it is the first book on the subject to interpret the word "industrial" in the widest sense. As the authors point out, "it is unfortunate that most of the research in industrial sociology has been done in the factory. This has led to a semantic confusion—one of identifying research on the factory with industrial sociology . . . The fact is that not more than one-quarter of the workers in the United States are employed in factories."

The theme of the book is that working cannot be divorced from living—a truth recognised by the medieval guilds, but lost sight of in the industrial revolution. Its gradual rediscovery of recent years is described in Chapter 1.

This chapter also includes a most interesting account of the experiments with the effects of illumination on output in the Hawthorne works of the Western Electric Co., Chicago, in 1924 and 1927. It was the baffling result of these experiments which led to the conclusion that there was a "mysterious X" in the treatment of workers which had more effect on production than any alteration of physical conditions.

What is "mysterious X?" In its simplest terms—making the workers feel that they have found stability, a place where they belong, and work whose purpose they can see.

These Suits Guard Rocket Propellant Men

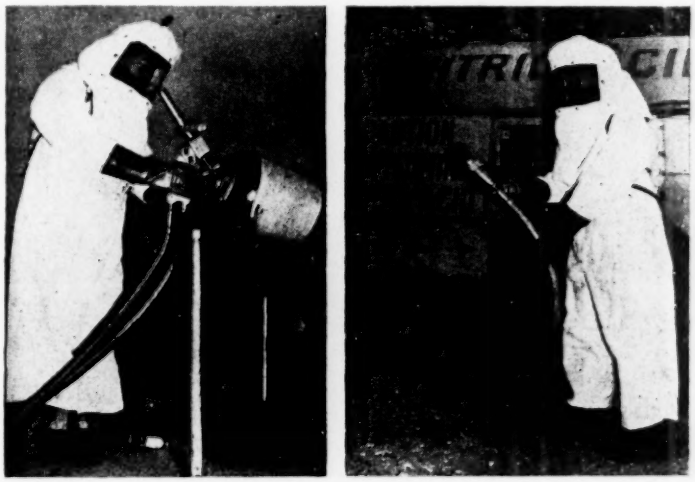
By MICHAEL LORANT

A NEW protective clothing assembly that couples on-the-job safety with comfort has recently been developed for the men who handle liquid rocket propellants for the U.S. Air Force. Working with these liquids is often risky. Take, for example, a propellant composed of red fuming nitric acid (RFNA) and aniline. The latter is often colourless and odourless, but highly toxic and readily absorbed through the skin. Aniline can prove deadly if enough of it enters the blood stream. Thus, special clothing for these workers is essential, as even the most experienced handlers cannot rely on their ability alone for protection against unforeseen mishaps.

Over two years ago, the clothing branch of the U.S. Air Material Command's Aero Medical Laboratory tackled the problem of providing this clothing. Their object—a protective assembly that would protect the whole body, incorporate interior cooling, and still give the worker comfort and ample elbow room. The end product of this research and development is a new coverall and hood assembly fabricated from vinyl-impregnated fibreglass, butyl rubber boots and vinyl-coated cotton gloves. A plastic visor in the hood affords the wearer ample front and side visibility.

To avoid overheating, two methods of internal cooling have been devised. The first, air cooling, utilises an air-ventilated harness attached to a nylon suit which is worn underneath the protective overall. Plastic tubes disperse the air equally throughout the interior of the assembly. The circulating air is supplied by an expansion turbine similar to the type used for cooling cockpits of fighter planes. A 50 ft. length of ⅜ in. plastic tubing delivers the air from the turbine to the suit harness. The circulating air within the hood prevents toxic fumes entering the hood interior, thereby eliminating the need for a respirator.

The second cooling method is water evaporation. This one employs an outer shell of mercerised cotton which fits over the protective overall. By saturating the cotton outer shell with water, overheating can be reduced greatly. With this method, the air ventilation and interior suit is not necessary. An air breathing apparatus (demand type) suspended by shoulder straps, is provided for the protection of the respiratory system. Of the two methods, engineers favour the more economical water evaporation which also provides the wearer with greater comfort and dexterity.



The suits protect the whole body, have internal cooling, yet give ample elbow room.

London Exhibition Highlights Eye Protection

A general view of the exhibition. Organisers were Miss B. Park (J. and R. Fleming Ltd.) and Mr. D. Parke, (Thos. P. Headland Ltd.)

SIX manufacturers of protective equipment and clothing last month combined with Thos. P. Headland Ltd., engineers' merchants, and the Royal Society for the Prevention of Accidents to stage an exhibition of industrial safety products and propaganda in the Headland welding machinery showroom in Lower Marsh, London, S.E.1. Main object was to stimulate supervisors' and operatives' interest in eye protection.

Visitors included managers, foremen and skilled workers. Several brought in safety problems which were solved for them by the exhibition staff.

"Why on earth didn't I get these years ago?" exclaimed a foreman woodworker who had just been supplied with a pair of spectacles with toughened glass lenses. He had, he said, paid several painful visits to hospital for the removal of wood splinters from his unprotected eyes. A furnaceman was likewise delighted with a pair of rubber goggles with hinged lenses to fit over his prescription glasses. For years, he declared, he had suffered miseries when the metal frame of his glasses became hot while he was recording furnace temperatures. (The goggle lenses can be raised to ventilate the eyes between jobs.) The exhibition was open for three weeks.

How to Plan and Equip Your Civil Defence Unit

3—Fundamentals of Planning

By JOHN O. BAKER, *Founder Fellow, Institute of Civil Defence, and Civil Defence Officer, South East Ports*

IT will be just as well if industry regards Civil Defence as just one more problem which has to be dealt with, and tackles it in the same manner as any other of the many problems which arise from day to day. There are certain fundamentals to any problem, and once these are appreciated it only remains for priorities to be allotted to them and action directed in relation to these priorities. The problem can then be successfully solved.

The five fundamentals of industrial C.D. which are of immediate moment are, in priority order:

(a) Planning.
(b) Selection and training of instructors.
(c) Preparation of training syllabuses and instructional aids.
(d) Recruitment of personnel.
(e) Training of personnel.

There is one further aspect which should not be overlooked, but which for the time being can be left in suspense, pending more concrete information: the provision of structural defence and operating equipment.

The Civil Defence officer who strictly adheres to this list will find that his task is comparatively simple. He will always be on top of his job, and his job will never get on top of him. Having said so much, I will confine myself for the remainder of this article to the aspect which should be the first concern of the C.D.O.—planning.

Planning, put briefly, consists of knowing what is required, knowing how to provide it, and having provided it, knowing how to use it. It can be said straight away that there can be no hard and fast plan laid down to suit every industrial and commercial undertaking in this country. Premises vary so much in design and layout, activities differ so greatly, and the numbers employed and the proportion of the sexes in given undertakings so rarely find parallels.

There are certain basic principles, however, which apply to every type of undertaking:

(a) To save life and property.
(b) To bring relief to those who might become casualties.
(c) To keep the wheels of our normal, everyday life and existence turning as smoothly as possible.

What C.D.O.'s Should Plan For

1. **An efficient air raid warning system.**
2. **Good shelter siting and reinforcement of key positions in the works.**
3. **Protection for essential plant and documents.**
4. **Rescue of, and first aid for, casualties.**
5. **Welfare for employees after raids.**
6. **Complete coverage of the premises by fire-fighting parties.**
7. **An adequate force of instructors.**

This gives the key to what must be aimed for in planning. The next step is to provide the means of achievement.

To save life and property, two types of action have to be taken, (a) direct or positive, (b) evasive. So far as direct action and the saving of life are concerned, provision should be made for giving warning of impending attack; for shelter protection during raids, and for the reinforcing of those parts of the factory, etc., where key men may have to remain at their posts during raid periods, such as boiler houses and switchboards. While no direct action is envisaged at the moment in relation to the provision of shelter protection, the maximum probable requirements, with their siting, should be a part of the plan, for on this will to a certain extent depend the number of wardens required. Every endeavour should be made to site shelters so that the minimum of time is required by the maximum number of those who would use the shelters to reach them from their normal working posts.

Evasive action is the actual act of taking shelter, and this would to a very great extent depend upon organisation of the warden section, and the manner in which they, the wardens, discharged their exacting duties.

As for the protection of property, a detailed survey should be made during the planning stage of all plant and equipment, and that which is regarded as essential, or which might be difficult to replace, should be listed so that means of protecting it

(*Continued on page* 135.)

Give Your Canteen Staff a "Hygiene Bonus"

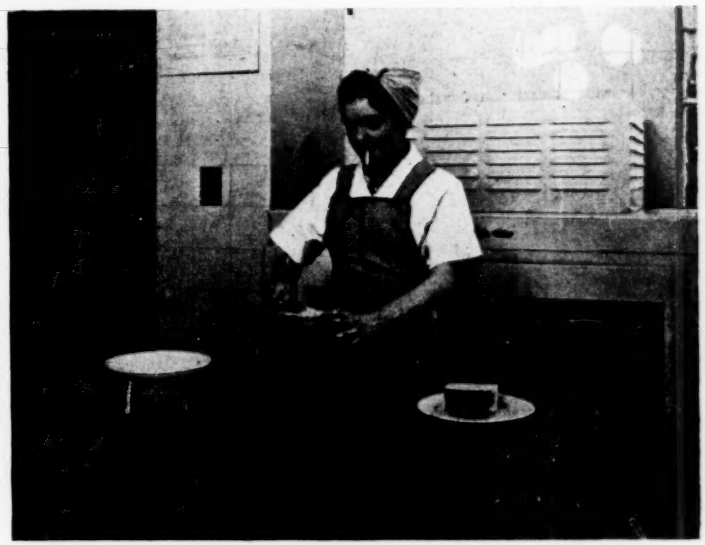
By L. BANHAM

It may cost a little more to ensure that the food served in your canteen is really clean, but the money could not be better spent.

COMPARATIVELY few of the people who are responsible for the provision of the 24 million meals served each week in industrial canteens and staff dining-rooms are adequately trained in the principles and practices of hygienic catering. The Working Party report on hygiene in catering establishments pays tribute to the work of such bodies as the Central Council for Health Education and the Scottish Council for Health Education in providing leaflets, posters, filmstrips and lecture demonstration courses for managements and staffs, and goes on to recommend that adequate and recurring provision for the all-important subjects of personal and food hygiene should be made in courses of instruction in all branches of catering.

Certain local councils do excellent work in providing lectures and courses for food-handlers. The enterprising canteen manager can get hold of plenty of material and help in his task of promoting a higher standard of hygiene in the production of the meals served in his canteen. Those whose duty it is to supervise the work in canteens know quite well that it is not enough to give an instruction about clean food preparation without giving a reason for it. Many of the faulty methods used are due to this omission. In these days of labour shortage the day-to-day instruction in hygiene of canteen staff calls for plenty of tact on the part of the canteen manager. Correction of staff for carelessness in this matter usually evokes deep resentment. This attitude of mind can, however, be largely overcome if the risks attendant on the faulty practice are explained at the time.

It is essential, therefore, that the canteen manager should be able to explain to his staff the principles underlying good hygienic practice.



How *not* to do it. A "still" from the latest filmstrip produced by the film section of British Transport Commission as part of the induction training of employees in London Transport canteens.

The management should always ensure that there is no excuse for a haphazard standard of hygiene in the production and service of meals. The following requirements should be met:

(a) Enough staff to do the work satisfactorily;
(b) Enough equipment, in good condition;
(c) A building which is kept clean and in good repair;
(d) An adequate supply of hot and cold water;
(e) Facilities for washing, together with soap, nail-brushes and clean towels;
(f) A supply (always) of toilet paper in the lavatory;
(g) Accommodation in lockers for the workers' outdoor clothing;
(h) Clean muslin cloths to protect food in the larder.

Canteen managements who are in doubt as to their part in promoting a higher standard of catering hygiene would do well to study the requirements set out in the "target code" recommended by the Catering Trade Working Party. The requirements are stated in brief and are quite comprehensive. To fulfil them all will often mean spending more money. It may be submitted that money wisely spent on this form of welfare is of greater and more lasting value than that which is spent by many firms on "outings" and other vague forms of welfare. Some firms will spend large sums on trips to the seaside for their employees and will at the same time submit the accounts of the canteen to a microscopic examination. The wages paid to canteen workers are rarely an inducement to them to take a really keen interest in the job. Many firms pay a little extra to the cooks who have qualifications in cookery; few, however, will be found to pay a little extra to staff suitably trained in hygiene. This is a short-sighted policy.

The report contains some excellent information on washing-up and the correct use of detergents. It stresses that, to be effective, detergents must be used correctly, i.e., of suitable kind and in proper concentration. Good washing-up procedures should aim at the obviation of cloth drying.

Looking Ahead

ADVANCE NEWS OF NEW FACTORIES AND WELFARE EXTENSIONS

Acton.—Plans submitted: Canteen building, British Alkaloids Ltd., Atlas Road.

Ayrshire.—Factory for Gemmels and Dunsmuir Ltd., Tourholm Mills, Kilmarnock.

Billingham-on-Tees.—Extensions to cost £250,000 are proposed by Imperial Chemical Industries Ltd., Billingham Division.

Blaenau Festiniog.—Architect for a disabled persons' factory is M. T. Pritchard, Tryfan, Wynn Road, Blaenau Festiniog.

Bolton.—T.C. has intimated to the Ministry of Supply that it is prepared to convey to them land at Lostock for the erection of buildings for the De Havilland Aircraft Co. Ltd.

Bradford.—The T.C. reports that Allied Colloids Ltd. are to erect a factory at Cleckheaton Road, Low Moor.

Brighouse.—Plans approved: Extensions at North Vale Mills, for North Vale Doubling Co. Ltd. Alterations to canteen at Norwood Green Colliery, for National Coal Board.

Brighton.—Tender at £118,580 has been accepted by Brighton Corporation for a factory on Hollingbury Industrial Estate, for S. Smith and Sons (Eng.) Ltd., Cricklewood, London, N.W.2. Another factory at Hollingbury is to be built for C. V. A. Jigs, Moulds and Tools Ltd. at £111,955. The B.C. has appointed William G. Phillips, 97 Mortimer Street, London, W.1, as architect for the factory to be built at the Hollingbury Light Industrial Estate for Shipston Engineering Co. Ltd.

Buxton.—A large factory is planned at Ashbourne Road, Buxton, Derbyshire, for Brake Linings Ltd. Architects are Wood, Goldstraw and Yorath, Station Road, Tunstall, Stoke-on-Trent.

Cheltenham.—The T.C. is recommended to approve a factory proposed at Turks Gardens, Tewkesbury Road, by G. Monroe Ltd., Malthouse Lane, Cheltenham.

Canvey, Essex.—U.D.C. has reported that a building licence for £500,000 has been issued to the Regent Oil Company for the execution of construction works at the Oil Wharves at Hole Haven.

Cardiff.—Precision Woodworking (Cardiff) Ltd. are applying to the T.C. for a lease of site at Mardy Industrial Estate. The T.C. is to open negotiations with H. Vanderplank Ltd. and Norton (Cardiff) Ltd., who have made applications for sites at Newport Road Industrial Estate. A similar application has been made by H. H. and S. Budgett and Co. Ltd.

Coventry.—Plans submitted: Factory and offices, Torrington Avenue, for G. E. Adams and Co. Ltd., Canley Road, Canley, Coventry. Factory in Torrington Avenue, for C. King. The B.C. proposes to lease a site at 5-11 Radford Road to P. W. and L. Thompson, 11 Woodland Avenue, Coventry, for new premises. The T.C. is to allocate site at junction of King Street and St. Nicholas Street, to Coventry Cees Ltd., for the erection of new premises.

Crawley.—H. MacIntosh and Partners, 33 High Street, Croydon, are the architects for a factory proposed by Young, Randall and Co. Ltd.

Croydon.—B.C. has approved factory rebuilding at Staffa Road for Visco Engineering Co. Ltd., for which the architect is G. Crump, 9 King's Bench Walk, Temple, London, E.C.4.

Daventry.—A factory is proposed in West Street, Weedon by J. Sears and Co. (True Form Boot Co.) Ltd., Stimpson Avenue, Northampton.

Derbyshire.—Pithead baths, lamp room, canteen and colliery offices are proposed by the National Coal Board at Denby Hall Colliery.

Dovercourt.—A new factory of 14,000 sq. ft. will be erected at Upper Dovercourt for Horwood Cranston Ltd., Harwich.

Ealing.—Plans submitted: Canteen building, Ruislip Road, Northolt, for Taylor, Woodrow Ltd.

Easington (Durham).—Plans for the proposed rebuilding of Thornley Miners' Welfare Institute have been approved by the R.D.C.

Edmonton.—Plans submitted for the erection of a canteen for Dereta Ltd., Bull Lane, N.18 (plans by F. E. Wilkins); works canteen for David Cope Ltd., Commercial Road, N.18 (plans by Shingler, Structett and Risdon); welfare clinic, Oakthorpe Park Estate, N.13, for L.C.S. Ltd.

Farnborough (Hants).—Factory premises proposed at Hawley Lane, by the Container Reclamation Co. Ltd., are recommended for approval by the County Planning Committee.

Finchley.—Plans submitted: Canteen and garage, 836 High Road, for H. A. Saunders Ltd.

Gateshead.—Iron and Steel Co. Ltd., will convert the model shop into a canteen in Team Street.

Glasgow.—Plans submitted: Erection of additional storey for classrooms, kitchen, refectory and lavatories, at the Glasgow and West of Scotland Commercial College, Pitt Street. Architects for extensions and adaptations to a factory at the King George V Dock, Shieldhall, proposed by the Clyde Soyameal Co., are O. Harold Hughes and Waugh, 206 Sauchiehall Street, Charing Cross, Glasgow, C.2.

Harlow.—Mr. H. C. Constantine, 28 West Street, Great Marlow, Bucks, is the architect for a factory proposed by Mentmore Manufacturing Co. Ltd.

Hebburn-on-Tyne.—Associated Lead Manufacturers Ltd. propose to rebuild the Tyne Lead Works.

Hebburn-on-Tyne.—Maurice Gatoff, Trafalgar Street, Newcastle-on-Tyne, is the architect for the proposed conversion of the north wing of Simpson's Hotel into a clothing factory for M. Russell, Newcastle-on-Tyne.

Hemel Hempstead.—Building contract has been arranged by Hemel Hempstead Development Corporation for a single storey factory, to cost £50,000, for Rolls Razor Ltd., of Cricklewood.

Houghton-le-Spring (Durham).—Dining, ambulance and ablutions rooms are proposed at the Lambton Engineering Works, Philadelphia, by Durham Coal Board (No. 2 area).

Hull.—T.C. has approved a lease for a site on Stoneferry Industrial Estate, for a factory for Atkinsons Structural Engineers. Cooke's (Hull) Ltd., are to erect a building on Reform Street Industrial Estate. Estates Committee proposes to lease land in Attercliffe Road and Princess Street to Davenport Bros. and Co. Ltd., as a site for a proposed factory.

Ilford.—Plans submitted: Use of land, Forest Road, for factory site for C. J. Whilems Ltd.; to plans by Chamberlain Industries Ltd., Staffa Road, E.10. Plans submitted: Extensions, including canteen and offices, 229 Green Lane, for Shaw and Lloyd.

Leith.—Joseph Rank Ltd. will proceed with the erection of the Caledonia Flour Mills at Leith, Edinburgh. A contract has been awarded to Holloway Bros. (London) Ltd., 157 Millbank, London, S.W.1, at £118,000. Engineers are L. G. Mouchel and Partners Ltd., 38 Victoria Street, Westminster, S.W.1.

Liverpool.—Corporation was asked recently to ratify the leasing of a site of 50 acres on the East Lancashire Road at Kirkby with an option on a further 86 acres, to the Standard Motor Company Ltd., who intend to erect a "super" factory. No further details are available at present.

Liverpool.—T.C. is recommended to lease six acres of land at junction of Kirkby Bank Road, and Birchill Road at the Kirkby Trading Estate to Coates Bros. and Co. Ltd., Easton Street, London, W.C.1, for the erection of a factory for the manufacture of printing inks. Yates, Cook and Darbyshire, 43 Great Marlborough Street, London, W.1, are the architects for a new factory proposed by the Distillers Co. Ltd., at a cost of £160,000.

Luton.—Plans submitted: Canteen, offices and extensions for F. H. Eve Ltd., at 664 Dunstable Road.

Maidstone.—The provision of a shop and canteen, at an estimated cost of £2,650, at Barming Heath Hospital, near Maidstone, has been approved by the South-East Metropolitan Regional Hospital Board.

Newcastle (Staffs).—Plans submitted: Pavilion and mess room, Apedale, for G. A. Forster Ltd.

North Westmorland.—Plans by the Express Dairy Co. Ltd., for a creamery proposed at Clifton have been approved in principle by the R.D.C.

Rochdale.—Plans proposed: Works canteen, for Thos. Holt Ltd.; rebuilding of mill premises for Townhead Mill Co. Ltd. Plans approved: Canteen at Harp Mill, for Lancs Cotton Corporation.

Rotherham.—Plans approved: Extensions in Grange Mill Lane, for Ambrose Sharlow and Co. Ltd.; extensions in Sheffield Road, for Steel, Peech and Tozier Ltd.; factory extensions in Fitzwilliam Road, for Plessey Co. Ltd. (Rotherham Division); additions to Town Mills, Canklow Road, for Robinson Bros. Ltd.; canteen at Swinden House, Moorgate Road, for United Steel Co. Ltd.

Scarborough.—Plans submitted: Factory at Ewart Street, for Kelley's Panel Shop, plans by E. W. Grey. Factory, 36 Seamer Road, for D. H. Greaves, plans by W. S. Grey, 100 Filey Road, Scarborough.

Sheffield.—A new factory, to cost £50,000, is proposed by W. Ridgway and Sons Ltd., 93 Edward Street, Sheffield 3.

Strathleven.—Burroughs Adding Machine Ltd., Nottingham, are to have a new 150,000 sq. ft. factory erected on the trading estate. Scottish Industrial Estates Ltd., of Glasgow, will begin work on it forthwith.

Stretford.—The Health Committee reports that tenders have been invited for the erection of canteen, office, etc., at the Poplar Meadows Tip.

Surbiton.—Plans submitted: Canteen, Davis Road, for M. A. Autos Ltd. Plans passed: A factory at junction of Mount Road and Cox Lane; architects, Laurence Gotch and Partners, 21 Bunhill Row, London, E.C.1.

Tutbury.—The reconstruction of glassworks in Ludgate Street is proposed by Thos. Webb and Corlett Ltd.

Walsall.—Demolition and levelling work is in hand on the 122-acre site at Tame Bridge, near Walsall, where a £1,000,000 works is to be erected for W. and T. Avery Ltd., of Smethwick, Birmingham. A building licence has been obtained. The new foundry will be built on the eastern quarter, and the rest, excepting the centre, will continue to be run as a trading estate. A feature of the new works will be baths similar to pithead baths, and a large canteen.

Watford.—Plans submitted: Extension to canteen, Rickmansworth Road. Extension to factory, Radlett Road, for British American Optical Co. Ltd. The T.C. reports that the De Havilland Engine Co. Ltd. propose to extend their Leavesden factories to provide employment for a further 1,500 workers.

West Bromwich.—B.C. proposes to lease sites for factories at Bromford Lane to following: D. Munslow and Son; J. R. Morris; Allied Building Contractors (Walker) Ltd.; Victoria Spring Co.; A. Higgs; Roway Metals Ltd.; Midland Washer Works Ltd.; South Staffordshire Creamery Ltd.; Drury Casement Co.; Hargate Tool and Engineering Co. Ltd., and Midland Candle Co. Ltd. A foundry is proposed by W. and T. Avery Ltd., Clerkenwell Green, London, E.C.1.

Wigan.—A canteen and other works proposed at Dalton Brick Works by the Latham Brick Co. Ltd., have been approved by the R.D.C.

is yours?

China and cutlery can look clean, but scientific cleanliness is another matter. Catering is difficult enough these days without fussing about bacteria. Yes! but there's no need to worry as Chinabrite has been prepared specially for the catering trade. It provides cleanliness with sterility for machine and hand washing-up. It saves time and trouble, and keeps crockery sparkling white. Why not try it ?

CHINABRITE

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For particulars apply to

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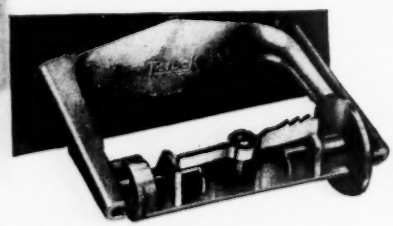
TOILET ROLL COSTS CUT!



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- **Prevents petty thieving of new rolls**
- **Hygienic—prevents unsightly wastage on floor**
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Complete including purchase-tax **22/-**
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Our Toilet Rolls are also available. Medicated 7 ozs., tightly wound, soluble tissue. The "Toilok" Holder, however takes all good toilet rolls. Special quotations for bulk orders, please send for specimen and price

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CENtral 1812/3
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1 The sheet tears easily but does not unroll, thus preventing wastage

2 The roll swings backwards far enough to release another sheet

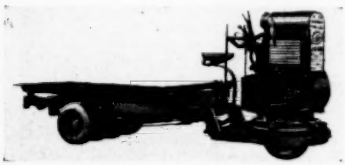
3 The toilet roll cannot be removed, but remains free to revolve

Industrial Equipment

THAT RAISES PRODUCTION EFFICIENCY

Readers who wish to have more particulars of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph.
We are always glad to receive details of new products suitable for description here, e.g., equipment that helps in any way to raise output.

HANDLING



Platform Truck

ILLUSTRATED is the Lister Autotruck, model RHC/NU9G, capacity 2 tons, equipped with elevating platform and pneumatic tyred wheels. The four rear wheels, arranged in pairs, are mounted on sprung swivel axles, an arrangement which enables the wheels to follow any inequalities in the floor surface and to share the load equally between them. Strains and stresses on wheel bearings, tyres, chassis, etc., are thus considerably reduced. The truck can be supplied with either hand pump and hydraulic jacks or power drive for elevating the platform.

A recent development of this type of truck is the well type platform model, the platform of which can be lowered right on to the ground to facilitate loading and unloading. **(PM/401.)**

Simple Truck Hoist

LOADING drums, sacks and crates on lorries by hand is heavy, tiring work and few small factories and warehouses can afford full-scale mechanical handling equipment.

The Johnson-Wedco hoist truck has been designed to eliminate hand loading. Similar to a porters' hand trolley, it is locked on the back of the lorry with a screw-clamp device. Goods loaded on the platform are easily raised to the required height by winding a handle, the whole platform sliding upwards in metal side runners. **(PM/402.)**

SAFETY

Hearing Protectors

EAR protectors which reduce the intensity of sound by as much as 30 decibels, i.e., to a thousandth part of its original strength, are now being made in this country. Known as Sonex ear defenders, they are moulded in a flexible plastic material (flesh-coloured and washable) and are so shaped that complete closure of the ear canal is effected without discomfort. Noise is reduced to a safe level, while conversation can still be maintained. Sonex also offer protection against infective dust, and are also useful to swimmers; to anyone obliged to sleep in noisy conditions, and in train, coach or air travel. **(PM/403.)**

MAINTENANCE

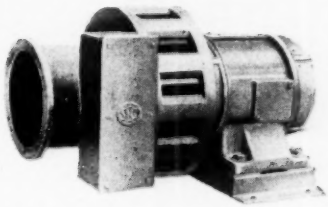
Protective Facing

GLOCRETE, a transparent plastic fluid, is designed as a surface coating for concrete, cement products of all kinds, brickwork, plaster, stone, tiles, masonry, timber and asbestos. The makers claim that it is permanently waterproof, but allows water vapour through, thus permitting the structure to which it is applied to "breathe." Glocrete is also said to be proof against attack by many acids and alkalis, oxidising agents, oils, fats, greases, certain industrial solvents, and polluted industrial atmospheres. Among other advantages claimed for this composition are the following:

1. It will not crack, peel, flake, craze, blister or disintegrate.
2. Its properties are not affected by age, sunlight or the greatest extremes of climate.
3. It can be supplied in certain colours, which are stable.
4. It can be brushed, sprayed or rolled over paints and distempers, or such coatings may be applied over Glocrete, as desired.

(PM/404.)

ADMINISTRATION



No-Wail Syren

THE Secomak C.S.6 syren incorporates automatic sound-damping shutters which not only enable it to emit coded signals (succession of long or short blasts; long, short, long blasts; etc.), but also cut out the rotary electrical syren's characteristic rising and falling notes when switched on and off respectively. It is even possible to send Morse signals if desired. All signals can be made by hand or automatically by means of a controller.

Thus, the C.S.6 is suitable for use as a fog signal in docks and harbours, a works time signal, a fire and burglar alarm, and for starting and stopping work in quarries, on estates, etc. With an approximate range of two to three miles, its note has a frequency of 470

cycles per second. The power unit is a 3 h.p. induction or D.C. motor. Size is 28 in. by 18 in. by 16 in., and weight 210 lb. The C.S.6 can be supplied for any voltage between 200 and 500 v. **(PM/405.)**

Man Hunter

PURPOSE of the Blick Man-Hunter is to eliminate time-wasting searches for key men in factory and office when they are wanted in a hurry. Its design is based—cleverly—on psychological principles. The designers argued this way: the simplest way of attracting attention is to flash a light, particularly if the light is situated in a direction to which attention is habitually directed. Everyone tends to look at a clock automatically. Why not light up the numerals on the dial when someone is wanted?

The Man-Hunter makes use of existing clocks. Each key member of the organisation is given a number. There are twelve numerals on a clock dial, and if arrangements are made to light up all twelve it is possible to allocate a distinctive call-sign to over 4,000 people. As a rule, however, it is only necessary to light up from three to five numerals. The system can be extended to include more if required. If there is no clock in a particular area, call

lights can be supplied. For a normal call the numbers are lit up continuously on every clock dial until the person concerned is located. For urgent calls a series of short flashes is substituted.

The control unit (bottom of picture) is usually situated either in the telephone exchange or the reception office, but it can equally well be on the managing director's desk. The operator has no need to memorise the call-signs, as she has, fixed to the control unit, a board giving the call-sign of every member of the staff. **(PM/406.)**

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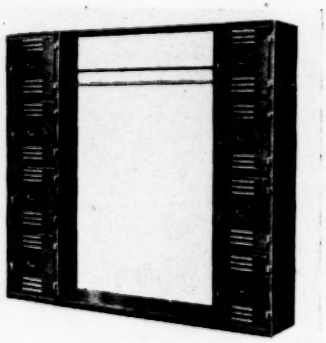
FLOOR CLEANING

Battery Sweeper

A WATER sprinkler, to keep down dust, is part of the equipment of the Lewin Universal battery hand-controlled sweeper, which is designed for use in factories, warehouses, station platforms and parks, or wherever an even surface exists. It will collect any kind of refuse, and is operated by one person by applying pressure to the right or left control handles, to which is also fitted the operating control.

Powered by a ½ h.p. 24 v. D.C. geared motor, the sweeper is provided with traction batteries of a capacity sufficient to give an average continuous working period of 3-4 hours before recharging. The batteries are replenished from a standard heavy duty charging board. An atomised water spray is fitted. **(PM/407.)**

WELFARE



Clothes Unit

MEASURING 6 ft. high by 5 ft. wide by 15 in. deep, the N.S.E. combination clothes unit is economical of floor space, yet serves eight employees. It comprises two nests of four personal lockers, each approximately 16 in. by 11 in. by 15 in., linked together by a 3 ft. wide hat rack and clothes rail, with steel top and plinth base. It is finished in green stove enamel. **(PM/408.)**

Unit Hot Cupboard

UNIT construction enables a new series of electric hot cupboards to be combined with any number of ovens, fish fryers or grillers in the same range.

The cupboards include a hotplate top for carving, etc., and the panels and doors (which slide on ball-bearing runners) are lagged to conserve heat. Separate three-heat switches are provided for the top and the cupboards, and adjustable legs ensure that the unit stands firmly on uneven floors.

Standard cupboards can be supplied either two, four or six ft. in length. The units have a stoved enamel finish and the top is dull nickel plated.

(PM/409.)

Summary of Official Publications

READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

BILLS

Pneumoconiosis and Byssinosis Bill. Dated July 25, 1951. *H.M.S.O.* 6*d*. Provides for payment of benefit out of the Industrial Injuries Fund to, or in respect of, persons who are totally disabled, or die from pneumoconiosis or byssinosis, who are not, nor have been, insured for those diseases under the National Insurance (Industrial Injuries) Act, 1946, nor are entitled to workmen's compensation.

ACTS

Reserve and Auxiliary Forces (Protection of Civil Interests) Act, 1951. Dated August 1, 1951. *H.M.S.O.* 2s. 6*d*. Provides for the protection of the civilian interests of men and women called up or volunteering for National Service, and of registered conscientious objectors.

STATUTORY INSTRUMENTS

No. 1227. The Ostrich and Fancy Feather and Artificial Flower Wages Council (Great Britain) Wages Regulation Order, 1951. Dated July 9, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(b). *H.M.S.O.* 4*d*. (Revokes Order O.F. (15) and sets out new statutory minimum remuneration payable. Operative as from July 25, 1951.)

No. 1232. The National Insurance (Increase of Benefit, Re-entry into Regular Employment and Miscellaneous Provisions) Regulations, 1951. Dated July 10, 1951, made by the Minister of National Insurance under Sections 4, 7 and 8 of the National Insurance Act, 1951(a), and under Sections 17(b), 29, 46, 60, 65 and 71 of the National Insurance Act, 1946(c). *H.M.S.O.* 1s. (Increased rates of benefit payable under 1951 Act. Prescribe conditions under which persons who have retired from regular employment may be treated as if they had not retired, for purposes of the Act. Provision is also made for counting certain contributions paid before July 16, 1951, as if paid, for purposes of increased pension increments, for weeks commencing on or after that date; determine basis on which the earnings rule may be relaxed in cases of widowed mother's allowances where less than the full weekly rate is paid. Operative as from July 16, 1951.)

No. 1233. The National Insurance (Industrial Injuries) (Benefit) Amendment (No. 2) Regulations, 1951. Dated July 9, 1951, made by the Industrial Injuries Joint Authority under Section 18(3) of the National Insurance (Industrial Injuries) Act, 1946. *H.M.S.O.* 2*d*. (Amend the 1948 Regulations by providing that in the case of a beneficiary who is incapable of self-support an increase of benefit may be paid in respect of his wife residing with him if her weekly earnings do not exceed 40s., instead of 20s. as formerly. Operative as from July 16, 1951.)

No. 1263. The Baking Wages Council (England and Wales) Wages Regulations (Amendment) Order, 1951. Dated July 12, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(b). *H.M.S.O.* 3*d*. (Amends Order B.K.(11) by increasing statutory minimum remuneration payable. Operative as from August 1, 1951.)

No. 1280. The Retail Newsagency, Tobacco and Confectionery Trades Wages Council (England and Wales) Wages Regulations (Amendment) Order, 1951. Dated July 13, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(d). *H.M.S.O.* 6*d*. (Amends Orders R.N.T. (3) and (4), and increases statutory minimum remuneration payable. Orders R.N.T. (6) and (8) are revoked. Operative as from August 8, 1951.)

No. 1303. The Milk Distributive Wages Council (Scotland) Wages Regulation (Amendment) (No. 2) Order, 1951. Dated July 18, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act 1945(d). *H.M.S.O.* 3*d*. (The First Schedule amends Order M.D.S. (49), as amended by Order M.D.S. (53), by varying the provisions relating to minimum overtime rates for work on Sundays payable to workers other than those whose attendance is normally required on six days only in the week. The Second Schedule amends Order M.D.S. (47) and sets out new provisions for holidays and holiday remuneration payable. Operative as from August 3, 1951.)

No. 1319. The Rope, Twine and Net Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1951. Dated July 19, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Acts, 1945(b). *H.M.S.O.* 4*d*. (Amends Order R. (98) by increasing statutory minimum remuneration payable. Operative as from August 8, 1951.)

No. 1329. The Perambulator and Invalid Carriage Wages Council (Great Britain) Wages Regulation Order, 1951. Dated July 23, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Acts, 1945(b). *H.M.S.O.* 4*d*. (Revokes Order I. (49) and sets out new statutory minimum remuneration payable. Operative as from August 8, 1951.)

No. 1332. The National Insurance (Claims and Payments) (Amendments) Regulations, 1951. Dated July 24, 1951, made by the Minister of National Insurance under Section 28 (2) of the National Insurance Act, 1946(a). *H.M.S.O.* 4*d*. (Revoke the Provisional Regulations, 1950, and amend the 1948 Regulations by providing that if a person who has not previously claimed sickness benefit fails to give notice of incapacity he shall not be disqualified for benefit; extend the time permitted for making a claim by a person claiming benefit for the first time; disqualify other claimants for benefit in respect of periods of incapacity earlier than three days before notice is given; relax the provisions relating to proof of reasonable cause for delay in claiming benefit in favour of certain persons who are, or have been, in hospital. Operative as from August 1, 1951.)

No. 1370. The Retail Bookselling and Stationery Trades Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1951. Dated July 30, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(b). *H.M.S.O.* 3*d*. (Amends Order R.B.C. (6) by increasing statutory minimum remuneration payable. Operative as from August 20, 1951.)

No. 1371. The Hairdressing Undertakings Wages Council (Great Britain) Wages Regulation Order, 1951. Dated July 30, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(c). *H.M.S.O.* 6*d*. (Revokes Orders H.U.(3) and H.U.(6), and sets out new statutory minimum remuneration payable. Operative as from August 21, 1951.)

GENERAL

The Recruitment and Training of Youth Leaders and Community Centre Wardens. Second report of the National Advisory Council on the training and supply of teachers. Issued by the Ministry of Education, July, 1951. *H.M.S.O.* 6*d*.

Civil Defence. Manual of Basic Training. Vol. II. Pamphlet No. 6. **Atomic Warfare.** (Reprinted 1951 incorporating Amendments No. 1.) Issued by the Home Office. *H.M.S.O.* 1s. 3*d*.

Memorandum on Carbon Monoxide Poisoning. Issued by the Ministry of Labour and National Service. Factory Form 827. *H.M.S.O.* 2s.

INDUSTRIAL COURT AWARDS

No. 2332. Distributive Trades. Reference: Interpretation of Award No. 2330. Award: The Court ruled that the interpretation of Award No. 2330 was that the work of allocators in connection with the export of meat outside the Midlands W.M.S.A. area did not form part of the men's normal duties and was therefore an additional duty. (July 4, 1951.)

No. 2333. Forestry. Reference: That the minimum rate for England and Wales should be applied to Scotland. Award: Claim not established. (July 4, 1951.)

No. 2334. Civil Air Transport. Reference: To determine dispute concerning amount of increase to be applied to existing salary scales. Award: The Court awarded an increase of existing scales of 15s. per week at all adult points and of 10s. per week at all age points below 21. (July 9, 1951.)

No. 2335. Government Industrial Establishments. Reference: For increase of 8s. 6d. per week to adult women canteen workers; for payment of minimum rate of the establishment in which they are employed to adult male canteen workers. Award: The Court awarded an increase of 6s. a week to adult women workers, and 7s. to all male porters employed in canteens. (August 1, 1951.)

NATIONAL ARBITRATION TRIBUNAL AWARDS

No. 1680. Rates of Wages and Conditions of Employment of Riggers and Lumpers Employed at North-east Coast Ports. Claim: For minimum rate of 21s. per day for specified conditions of employment. Award: The Tribunal found in favour of the claim for a minimum rate of 21s. per day; that the rate for transportation which occupies eight hours or less be 21s., hours worked in excess of eight to be paid overtime; payment for trial trips to be 21s. per day, with an

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additional mileage payment and food on a scale agreed by the National Maritime Board; where part of an hour is worked, thirty minutes or less shall count as half-an-hour, and over thirty minutes shall count as an hour. Claims for other conditions of employment were found not established. (June 6, 1951.)

No. 1681. Rate of Payment to Riggers and Lumpers Employed at North-east Coast Ports for a Transportation Begun During the Normal Working Day. Claim: Dispute regarding deduction to be made from daily rate of pay when a transportation is begun during the day's work. Award: The Tribunal found against the claim of the employers for a change in the present basis of payment and awarded accordingly. (June 6, 1951.)

No. 1682. Annual Holidays in the Buffalo Picker Manufacturing Industry. Claim: For additional week's holiday with pay. Award: The Tribunal found in favour of the claim, the award to take effect from 1951. (June 11, 1951.)

No. 1683. Remuneration of Orthopædic Appliance Workers. Claim: That terms of the agreement of March, 1951, between the Surgical Instrument Manufacturers' Association (Inc.) and the National Union of Furniture Trade Operatives be applied to orthopædic appliance makers. Award: In favour of workmen's claim. (June 11, 1951.)

No. 1684. Annual Holidays of Certain Workers Employed by a Firm of Glass Processors in London. Claim: For additional week's holiday with pay. Award: In favour of workmen. (June 12, 1951.)

No. 1685. Rates of Wages and Conditions of Employment of Tugboatmen Employed on the River Wear. Claim: For increase in wages of £1 per week and variation of certain conditions of employment. Award: The Tribunal awarded as follows: (a) Increase of 12s. 6d. per week in basic wages; (b) An additional week's holiday with pay; (c) Where men have been ordered on board between 7 p.m. and 12 p.m. and the order is subsequently cancelled, payment shall be made for 2 hours' overtime; (d) Sunday work shall be paid at double plain time rate. Other items were found not established. (June 15, 1951.)

No. 1686. Minimum Rates of Wages of Workers Employed in Fish Curing Houses at Hull. Claim: For increase of 15s. to adult male workers, and proportionate increases for women and adults. Award: The Tribunal awarded as follows: Male unskilled workers, 21 and over, 110s. per week; filleters and motor drivers, 125s.; splitters, 135s.; night smokers/chargehands, 125s.; assistant night smokers, 110s.; unskilled boys and youths, from 40s. at 15 years of age, to 110s. at 21. Unskilled female workers, 36s. a week at 15 years of age, to 75s. at 20 and over; herring splitters and regular fish washers, 81s. 6d. (June 18, 1951.)

No. 1687. Question as to the Observance of Recognised Terms and Conditions of Employment in Respect of a Certain Worker Formerly Employed by an Engineering Firm at Coventry. Claim: Whether employers observed recognised terms and conditions of engineering agreement. Award: The Tribunal found that the company had not observed recognised terms and conditions and awarded accordingly. (June 18, 1951.)

No. 1688. Rates of Wages of Certain Workers Employed on Ship Repair Work at Grimsby. Claim: For payment of specified rates to platers, welders, caulkers, riveters, holders-up, burners and drillers. Award: The Tribunal found the claim as stated not established. (June 22, 1951.)

No. 1689. Working Week and Annual Holidays of Workers Employed in the Linoleum and Felt Base Industry. Claim: For shorter working week and two weeks' paid annual holiday. Award: The Tribunal awarded as follows: (1) Normal working week to be reduced to 45 hours, without reduction in existing weekly rates, as from first full pay week following August 1, 1951; (2) Two weeks' annual holiday with pay to be granted from 1952 holiday period. (June 27, 1951.)

No. 1690. Remuneration of Crowd Artistes Employed in Film Studios. Claim: for additional payment for provision of costumes. Award: The Tribunal found against the claim as stated but awarded that a payment of 7s. 6d. be made for the second and each subsequent suit worn or provided by the artiste on any one day. (July 2, 1951.)

No. 1691. Question as to the Participation in the Distribution of School Milk by Schoolkeepers Employed by the Middlesex County Council. Claim: Dispute over distribution of school milk by schoolkeepers. Award: The Tribunal awarded that schoolkeepers should assist in the distribution of milk except where satisfactory arrangements already existed, and provided that additional help was made available in certain circumstances. (July 2, 1951.)

No. 1692. Question as to the Observance of Recognised Terms and Conditions of Employment in Respect of a Certain Worker Formerly Employed by a Firm of Steel Founders at Coatbridge, Lanarkshire. Claim: Dispute as to whether company were observing recognised terms and conditions. Award: The Tribunal found that the company were not observing recognised terms as they did not pay a week's wages in lieu of notice to worker concerned, and they awarded accordingly. (July 2, 1951.)

No. 1693. Remuneration of School Attendance Officers in Scotland. Claim: That salaries of school attendance (welfare) officers in Scotland should be not less favourable than those paid in England. Award: Claim not established. (July 3, 1951.)

No. 1694. Observance of Guaranteed Week Provisions of an Agreement by an Engineering Firm at Llanelly. Claim: For payment of guaranteed week under agreement in respect of December 28 and 29, 1950. Award: In favour of workmen. (July 6, 1951.)

No. 1695. Annual Holidays of Engineering Workers Employed by a Rubber Manufacturing Company in Scotland. Claim: For two weeks' paid holiday for workers employed in the maintenance department. Award: Claim not established.

No. 1696. Rates of Wages and Conditions of Employment of Certain Workers Employed by a Firm of Multiple Retail Grocers and Provision Merchants in the East Kent Area. Claim: For establishment of specified terms and conditions. Award: Claim not established. (July 10, 1951.)

No. 1697. Rates of Wages and Conditions of Employment of Certain Workers Employed in the Baking Trade in the North of England. Claim: For rates and conditions equal to those operating in co-operative bakeries. Award: The Tribunal found against the claim as stated, but awarded that male and female workers be paid 4s. and 3s. a week respectively above current rates under the Order of the Baking Wages Council. (July 10, 1951.)

No. 1698. Question as to the Observance of Recognised Terms and Conditions of Employment in Respect of Certain Workers Employed by a Plumbing Contractor at Rhyl. Claim: Whether employer was observing recognised rates and conditions of certain workers. Award: The Tribunal found that the employer was not paying recognised district rates to certain journeymen and apprentices and awarded accordingly. (July 16, 1951.)

No. 1699. Rates of Wages of Transport Workers Employed by a Firm of Wholesale Distributive Chemists in London. Claim: Dispute regarding rates of pay applicable to transport workers. Award: Claim not established. (July 15, 1951.)

No. 1700. Radius Allowance Applicable to Outside Steelwork Erectors Employed on a Contract at Howdon-on-Tyne. Claim: For payment of radius allowance to workers previously employed as erectors on a contract at Howdon gas works. Award: In favour of workmen. (July 16, 1951.)

No. 1701. Claim for Payment in Lieu of Notice in Respect of a Worker Formerly Employed by a Firm of Constructional Engineers. Claim: For wages in lieu of notice. Award: In favour of workman. (July 16, 1951.)

No. 1702. Question as to the Observance of Recognised Terms and Conditions of Employment in Respect of a Worker Formerly Employed by an Engineering Firm at Birmingham. Claim: Dispute as to whether employers were observing recognised terms and conditions. Award: The Tribunal found that the firm were not observing terms and conditions in respect of payment of one week's wages in lieu of notice and holiday credits, and awarded accordingly. (July 16, 1951.)

No. 1703. Rates of Wages and Conditions of Employment of Certain Workers Employed at a Theatre in Woolwich. Claim: That company should observe negotiated amendments to agreement of July 12, 1948. Award: In favour of workmen. (July 19, 1951.)

No. 1704. Rates of Wages and Conditions of Employment of Certain Workers Employed at a Theatre in Poplar. Claim: That company should observe negotiated amendments to agreement of July 12, 1948. Award: In favour of workmen. (July 19, 1951.)

No. 1705. Dismissal of Certain Workers Formerly Employed at a Hospital at Hartlepools. Claim: Dispute regarding dismissal of workers. Award: Claim not established. (July 19, 1951.)

No. 1706. Rates of Wages of Certain Workers Employed by a Firm of Retail Grocers and Provision Merchants in the Portsmouth Area. Claim: For separate agreement laying down minimum rates of wages for managers, manageresses and other staff employed in retail shops. Award: Claim not established. (July 24, 1951.)

No. 1707. Charges to be Levied by Foyboatmen for Their Services at the Teesport Oil Berths. Claim: Dispute concerning charges to be levied for services at oil berths. Award: The Tribunal laid down the following scales: **Manning Scale:** Vessels up to 2,000 tons S.D.C.—2 men; from 2,001 to 5,000 tons S.D.C.—4 men; 5,001 to 6,000 tons S.D.C.—mooring—8 men, unmooring—4 men; 6,001 tons and over—mooring—8 men, unmooring —6 men. **Charges:** Vessels up to 5,000 tons S.D.C.—tariff base rate plus 75 per cent; 5,001 to 9,000 tons S.D.C.—at the rate of £1 per foyboatman employed; 9,001 to 10,000 tons S.D.C. —at rate of £1 2s. 1d. per foyboatman employed, 10,001 tons and upwards—additional payment for each additional 1,000 tons above 10,000 tons, at the rate of 2s. 6d. per foyboatmen employed, e.g., for vessels of 10,001 tons up to 11,000 tons the charge will be £1 4s 7d. per foyboatman. 11,001 tons up to 12,000 tons, £1 7s. 1d. per foyboatman, and so on. (July 26, 1951.)

No. 1708. Claim in Respect of the Employment of Skilled Engineers on a Particular Class of Work at a Steel Works in Scotland. Claim: For continuance of established custom of employing skilled engineers as cogger rollers until such time as practice was altered by agreement between the company and the union. Award: Claim not established. (July 27, 1951.)

No. 1709. Piece Rates of Certain Workers Employed in the Fellmongering Trade in England and Wales. Claim: For an increase of 7½ per cent in the existing piecy rates, retrospective from December 4, 1951. Award: In favour of claim, retrospective from March 2, 1951. (July 27, 1951.)

No. 1710. Question as to the Application of a Specified Agreement to Certain Skilled Workers Employed at Two Engineering Establishments in the Manchester Area. Claim: For application of engineering agreement of January 6, 1942, to certain skilled workers. Award: The Tribunal found in favour for the claim in regard to markers-off, but not in regard to capstan setters. (July 31, 1951.)

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HOW TO PLAN AND EQUIP YOUR CIVIL DEFENCE UNIT

(*Continued from page 126*)

may be devised. During this survey, drawing offices and other places where essential documents and records are housed should not be overlooked, and an effort should be made to evolve some means of safeguarding them against possible destruction, or, alternatively, of having photostatic copies made and deposited in some safe place.

Rescue and First-Aid

If air raid damage were sustained, it would be more than probable that casualties would be suffered, and so the plan must provide for their relief. Casualties might occur in free spaces, or they might be trapped in parts of collapsed buildings, under machinery or a variety of other not readily accessible places. Therefore, provision should be made for having available parties for rendering immediate first-aid, and also parties who are trained and equipped to rescue casualties who may be trapped, and to render first-aid to them on the spot.

The number of such parties, and the siting of them during warning periods will depend entirely upon local conditions and the general lay-out of the site. A large undertaking would be well advised to have a number of first-aid/rescue parties, sited on a number of different points.

While the National Hospital Service would be responsible for treating casualties caused through enemy action, it could happen that casualties could not be taken to hospitals for some considerable time; and so the wise planner will make some provision for a first-aid post, or an extension of existing first-aid post facilities to meet possible war-time demands.

Civil Defence Industrial Bulletin No. 1 makes no mention of welfare services, and though these would not be required in their wider aspects within any industrial Civil Defence organisation, it is suggested that some provision could be made for "the cup of tea being laid on" at short notice. Such an action would be a good employer act, and one from which nothing but favourable reaction would result.

Fire is still regarded as one of the major hazards attendant upon modern aerial warfare, and arrangements should be made for the organisation of fire parties in sufficient numbers to give a complete coverage to every part of an undertaking. Further, where a 24-hour workday is not in vogue, the C.D.O. should plan for an adequate number of fire parties to be on the premises during closed periods.

Mention has been made of wardens, first-aid and rescue parties, fire fighters and key men, and by way of an aside, welfare. The next consideration should be the co-ordinating of these sections into a working whole, and this is where control comes into the picture. Control implies positive direction of all effort from a single point. To attain this end the controller must be sited at some point readily accessible from and to all parts, and be in direct communication with all sections, so that he can be notified of all incidents as they occur, and be in a position to institute relief measures at once.

Following the course outlined above, the C.D.O. will produce a picture which will show, among other things, the numbers required for each of the sections of his organisation. He will then be able to assess how many instructors he needs. Instructors will have to be available, of course, before any general training scheme can be put in hand, and this aspect will be dealt with in detail in a future article. Meantime, it is suggested that industrial C.D.O.'s make contact with their local counterparts (if they have not already done so) and ask what facilities are available for training selected members of their units as general and rescue instructors.

THE MONTH'S DATES

Ashridge
September
11-17 "Productivity in Industry." Speakers: F. C. England, Sir Ewart Smith, Tom Williamson, B. N. Wallis, John Sargrove.

British Council for Rehabilitation
1-6 "The British Rehabilitation Service." Manpower Exhibition, Horseferry Road, London, S.W.1.

Chartered Institute of Secretaries
5 Annual Meeting. Grand Hotel, Sheffield. 6 p.m.
19 Luncheon Meeting. Speaker: The Master Cutler, G. Wilton Lee. Sheffield City Hall. 1 p.m.
21 "Production—Key to Plenty," and other films. Mackworth Hotel, Swansea. 7 p.m.

Institution of British Launderers
28 to Oct. 2 Conference for Young Launderers. Cairn Hydro Hotel, Harrogate.

Institution of Works Managers
September
11 Annual General Meeting and Dinner. Grand Hotel, Birmingham. 7 p.m.
17 Annual General Meeting. "Job Evaluation." R. Aston, Institution of Engineers and Shipbuilders, Glasgow. 7.15 p.m.
24 Speaker: E. J. Holford Stevens, Regional Controller, Board of Trade. Grand Hotel, Manchester. 6.30 p.m.

National Institute of Industrial Psychology
4 Conference for Production Executives, London.
6 Conference on Selection Methods, London.
10-11 Course for Supervisors, Glasgow.
12-13 Course for Supervisors, Newcastle.
14 Conference on Selection Methods, Newcastle.
17-21 Course III in Selection Methods, London.
18-19 Course for Supervisors, London.
24 Conference on Supervisor Training, Belfast.
24-25 Course for Supervisors, Belfast.
26 Conference on Selection Methods, Belfast.
27-28 Conference, Dublin.

Pendley Manor
17-22 Foreman's Course.

Y.M.C.A. College
1-7 Annual Reunion Course. (Mainly for ex-students of College industrial courses.)
8-10 Annual College Reunion. (Industrial Course Students.)

Institution of Production Engineers
19 "The Machine Tool Industry." W. J. Morgan, M.B.E. James Watt Memorial Institute, Birmingham. 7 p.m.
24 "We Must Do Better." E. C. Gordon England, College of Technology, Manchester. 7.15 p.m.
27 "Assessment of Production Engineering Training." T. B. Worth, Mathers Hotel, Dundee. 7.45 p.m.

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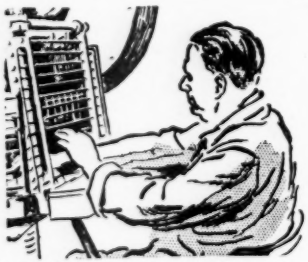

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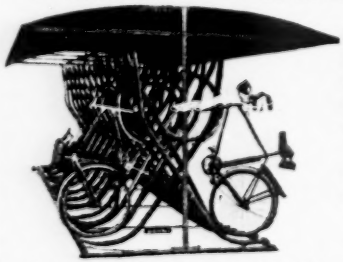

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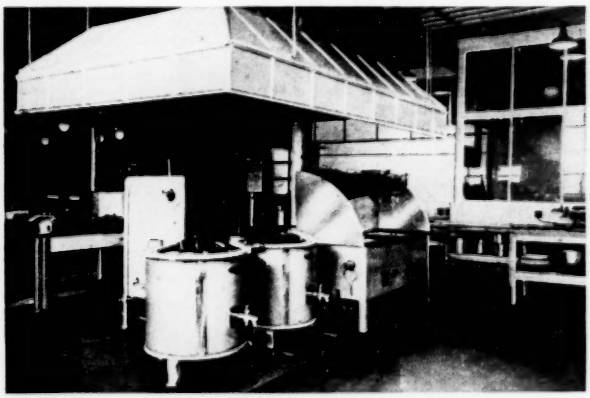

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